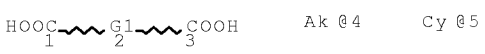
INVENTOR SEARCH

```
=> d his l105

     (FILE 'CASREACT' ENTERED AT 18:04:19 ON 28 DEC 2007)
L105          3 S L104 AND L43
                SAV TEMP L105 JAI943CRCTIN/A

     FILE 'STNGUIDE' ENTERED AT 18:07:13 ON 28 DEC 2007

=> d que l105
L43             QUE  ABB=ON  PLU=ON  PY<2004 OR PRY<2004 OR AY<2004 OR
                MY<2004 OR REVIEW/DT
L82           22 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "UNIVERSIDADE FEDERAL
                DO RIO DE JANEIRO UFRJ BRAZIL"/PA,CS,SO,CO
L84             QUE  ABB=ON  PLU=ON  CARDOSO J?/AU
L85             QUE  ABB=ON  PLU=ON  FERREIRA L?/AU
L86             QUE  ABB=ON  PLU=ON  FERREIRA GOMES L?/AU
L87             QUE  ABB=ON  PLU=ON  GOMES L?/AU
L88             QUE  ABB=ON  PLU=ON  L85 OR L86 OR L87
L89             QUE  ABB=ON  PLU=ON  LOPES C?/AU
L90             QUE  ABB=ON  PLU=ON  LOPES R?/AU
L91             QUE  ABB=ON  PLU=ON  ALVES DA SILVA J?/AU
L92             QUE  ABB=ON  PLU=ON  ALVES J?/AU
L93             QUE  ABB=ON  PLU=ON  SILVA J?/AU
L94             QUE  ABB=ON  PLU=ON  (L91 OR L92 OR L93)
L95             QUE  ABB=ON  PLU=ON  L84 OR L88 OR L89 OR L90 OR L94
L102          4 SEA FILE=CASREACT ABB=ON  PLU=ON  ("ALVES DA SILVA,
                JACQUELINE"/AU OR "CARDOSO, JARI NOBREGA"/AU OR
                "FERREIRA GOMES, LETICIA"/AU OR "LOPES, CLAUDIO
                CERQUEIRA"/AU OR "LOPES, ROSANGELA SABATTINI CAPELLA"/A
                U)
L103          2 SEA FILE=CASREACT ABB=ON  PLU=ON  L95 AND L82
L104          4 SEA FILE=CASREACT ABB=ON  PLU=ON  (L102 OR L103)
L105          3 SEA FILE=CASREACT ABB=ON  PLU=ON  L104 AND L43


=> d his l101

     (FILE 'HCAPLUS' ENTERED AT 17:57:13 ON 28 DEC 2007)
L101          5 S L100 AND L43

=> d que l101
L5              STR
```



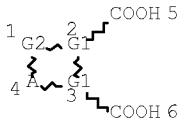

```
VAR G1=4/5
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M1-X2 C  AT   4
ECOUNT  IS M1-X8 C  AT   5

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   5

STEREO ATTRIBUTES: NONE
L6              STR
```

Ak @5 Cy @6

VAR G1=H/5/6
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M3-X8 C AT 6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L8 SCR 1527
L9 SCR 1918 OR 2043 OR 2127
L10 SCR 1841
L12 59360 SEA FILE=REGISTRY SSS FUL L5 AND L8 NOT (L9 OR L10)
L17 SCR 1627 OR 1633
L19 67125 SEA FILE=REGISTRY SSS FUL L6 AND L17 NOT (L9 OR L10)
L28 STR



VAR G1=C/N
REP G2=(1-5) A
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L30 8789 SEA FILE=REGISTRY SUB=L12 SSS FUL L28
L43 QUE ABB=ON PLU=ON PY<2004 OR PRY<2004 OR AY<2004 OR MY<2004 OR REVIEW/DT
L45 40816 SEA FILE=HCAPLUS ABB=ON PLU=ON L12/RACT
L46 20416 SEA FILE=HCAPLUS ABB=ON PLU=ON L19/RACT
L50 5313 SEA FILE=HCAPLUS ABB=ON PLU=ON L30/RACT
L81 22 SEA FILE=HCAPLUS ABB=ON PLU=ON ("ALVES DA SILVA, JACQUELINE"/AU OR "CARDOSO, JARI NOBREGA"/AU OR "FERREIRA GOMES, LETICIA"/AU OR "LOPES, CLAUDIO CERQUEIRA"/AU OR "LOPES, ROSANGELA SABATTINI CAPELLA"/AU)
L82 22 SEA FILE=HCAPLUS ABB=ON PLU=ON "UNIVERSIDADE FEDERAL DO RIO DE JANEIRO UFRJ BRAZIL"/PA,CS,SO,CO
L83 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L81 AND L82
L84 QUE ABB=ON PLU=ON CARDOSO J?/AU
L85 QUE ABB=ON PLU=ON FERREIRA L?/AU
L86 QUE ABB=ON PLU=ON FERREIRA GOMES L?/AU
L87 QUE ABB=ON PLU=ON GOMES L?/AU
L88 QUE ABB=ON PLU=ON L85 OR L86 OR L87
L89 QUE ABB=ON PLU=ON LOPES C?/AU
L90 QUE ABB=ON PLU=ON LOPES R?/AU
L91 QUE ABB=ON PLU=ON ALVES DA SILVA J?/AU

```
L92             QUE  ABB=ON  PLU=ON  ALVES J?/AU
L93             QUE  ABB=ON  PLU=ON  SILVA J?/AU
L94             QUE  ABB=ON  PLU=ON  (L91 OR L92 OR L93)
L95             QUE  ABB=ON  PLU=ON  L84 OR L88 OR L89 OR L90 OR L94
L96           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L95 AND L82
L97           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L95 AND (L45 OR L46
                OR L50)
L99           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L95 AND (HYDRAZ? AND
                DICARBOXYLIC(A)ACID?)
L100          9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L83 OR L96 OR L97 OR
                L99
L101          5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L100 AND L43


=> dup rem l105 l101
FILE 'CASREACT' ENTERED AT 18:08:52 ON 28 DEC 2007
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'HCAPLUS' ENTERED AT 18:08:52 ON 28 DEC 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)
PROCESSING COMPLETED FOR L105
PROCESSING COMPLETED FOR L101
L106          7 DUP REM L105 L101 (1 DUPLICATE REMOVED)
                ANSWERS '1-3' FROM FILE CASREACT
                ANSWERS '4-7' FROM FILE HCAPLUS
```

INVENTOR SEARCH RESULTS

=> d l106 1-7 ibib

L106 ANSWER 1 OF 7 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 143:26622 CASREACT Full-text
TITLE: Hydrazide catalytic production process from hydrazines and dicarboxylic acids in the presence of Lewis acids
INVENTOR(S): Lopes, Claudio Cerqueira; Lopes, Rosangela Sabattini Capella; Cardoso, Jari Nobrega; Alves Da Silva, Jacqueline; Ferreira Gomes, Leticia
PATENT ASSIGNEE(S): Universidade Federal do Rio de Janeiro-UFRJ, Brazil
SOURCE: PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005051870	A2	20050609	WO 2004-BR236	20041125
WO 2005051870	A3	20050707		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
BR 2003007864	A	20050705	BR 2003-7864	20031125
US 2007128680	A1	20070607	US 2006-595943	20060522
PRIORITY APPLN. INFO.:			BR 2003-7864	20031125
			WO 2004-BR236	20041125

OTHER SOURCE(S): MARPAT 143:26622

L106 ANSWER 2 OF 7 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 138:169800 CASREACT Full-text
TITLE: Study of the protonation/deprotonation sequence of two polyamines: bis-[(2S)-2-pyrrolidinylmethyl]ethylenediamine and spermidine by 1H and 13C nuclear magnetic resonance
AUTHOR(S): Da Silva, Jacqueline Alves; Felcman, Judith; Lopes, Claudio Cerqueira; Lopes, Rosangela S. C.; Villar, Jose Daniel Figueroa
CORPORATE SOURCE: Department of Chemistry, Pontificia Universidade Catolica do Rio de Janeiro, PUC, Rio de Janeiro, Brazil
SOURCE: Spectroscopy Letters (2002), 35(5), 643-661
CODEN: SPLEBX; ISSN: 0038-7010
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L106 ANSWER 3 OF 7 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 135:195748 CASREACT Full-text
TITLE: Process for the synthesis of aza sugars having biological activity
INVENTOR(S): Lopes, Claudio Cerqueira; Lopes, Rosangela Sabbatini Capella; Matos, Carlos Roberto Ribeiro
PATENT ASSIGNEE(S): Brazil
SOURCE: Braz. Pedido PI, 56 pp.
CODEN: BPXXDX
DOCUMENT TYPE: Patent
LANGUAGE: Portuguese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BR 9902585	A	20000926	BR 1999-2585	19990211
PRIORITY APPLN. INFO.:			BR 1999-2585	19990211

OTHER SOURCE(S): MARPAT 135:195748

L106 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1988:21627 HCAPLUS Full-text
DOCUMENT NUMBER: 108:21627
TITLE: Use of 2-(α-naphthylethyl)furan in diene synthesis: an access to the derivatives of original heterocycles
AUTHOR(S): Duval, O.; Gomes, L. Mavoungou
CORPORATE SOURCE: Lab. Chim. Org., Univ. Angers, Angers, 49000, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1987), (1), 131-42
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: French
OTHER SOURCE(S): CASREACT 108:21627

L106 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1980:426178 HCAPLUS Full-text
DOCUMENT NUMBER: 93:26178
ORIGINAL REFERENCE NO.: 93:4385a,4388a
TITLE: Application of 2-(3,4-dihydro-α-naphthyl)furan in the synthesis of polycondensed cyclic structures
AUTHOR(S): Gomes, Louis Mavoungou; Cabares, Jacques
CORPORATE SOURCE: Lab. Chim. Org., UER Sci. Med. Pharm., Angers, 49000, Fr.
SOURCE: Comptes Rendus des Seances de l'Academie des Sciences, Serie C: Sciences Chimiques (1980), 290(1), 29-31
CODEN: CHDCAQ; ISSN: 0567-6541
DOCUMENT TYPE: Journal
LANGUAGE: French
OTHER SOURCE(S): CASREACT 93:26178

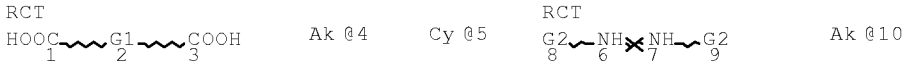
L106 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1979:103870 HCAPLUS Full-text
DOCUMENT NUMBER: 90:103870
ORIGINAL REFERENCE NO.: 90:16407a,16410a
TITLE: New synthesis method for 4(4H)-furo[3,2-

c]pyronone derivatives
AUTHOR(S): Gomes, Louis Mavoungou; Cabares, Jacques; Aicart, Michel
CORPORATE SOURCE: Cent. Etude Plantes Med., UER Sci. Med. Pharm., Angers, Fr.
SOURCE: Comptes Rendus des Seances de l'Academie des Sciences, Serie C: Sciences Chimiques (1978), 287(9), 381-4
CODEN: CHDCAQ; ISSN: 0567-6541
DOCUMENT TYPE: Journal
LANGUAGE: French
OTHER SOURCE(S): CASREACT 90:103870

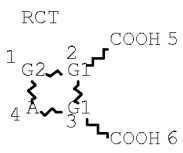
L106 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:27336 HCAPLUS Full-text
DOCUMENT NUMBER: 82:27336
ORIGINAL REFERENCE NO.: 82:4345a,4348a
TITLE: Ketogenesis in isolated rat liver mitochondria. IV. Oxalacetate decarboxylation, consequences for metabolic calculations
AUTHOR(S): Lopes-Cardozo, M.; Van den Bergh, S. G.
CORPORATE SOURCE: Lab. Vet. Biochem., State Univ. Utrecht, Utrecht, Neth.
SOURCE: Biochimica et Biophysica Acta, Bioenergetics (1974), 357(2), 193-203
CODEN: BBBEB4; ISSN: 0005-2728
DOCUMENT TYPE: Journal
LANGUAGE: English

STRUCTURE SEARCH

```
=> d his l44

     (FILE 'CASREACT' ENTERED AT 17:17:23 ON 28 DEC 2007)
L44          32 S L42 AND L43

=> d que stat l44
L2           38 SEA FILE=REGISTRY ABB=ON  PLU=ON  (10025-73-7/BI OR
                10025-91-9/BI OR 10026-07-0/BI OR 10026-10-5/BI OR
                10026-11-6/BI OR 10026-12-7/BI OR 10049-06-6/BI OR
                10108-64-2/BI OR 10294-34-5/BI OR 123-91-1/BI OR
                13450-90-3/BI OR 22441-45-8/BI OR 3682-15-3/BI OR
                521-31-3/BI OR 603-11-2/BI OR 67-64-1/BI OR 67-68-5/BI
                OR 68-12-2/BI OR 7446-70-0/BI OR 7447-39-4/BI OR
                7487-94-7/BI OR 7550-45-0/BI OR 7637-07-2/BI OR
                7646-79-9/BI OR 7646-85-7/BI OR 7647-18-9/BI OR
                7697-37-2/BI OR 7705-07-9/BI OR 7705-08-0/BI OR
                7718-54-9/BI OR 7758-89-6/BI OR 7784-34-1/BI OR
                7786-30-3/BI OR 7787-47-5/BI OR 7787-60-2/BI OR
                7789-48-2/BI OR 85-44-9/BI OR 872-50-4/BI)
L22             STR
```

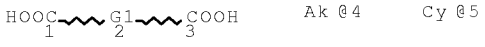



```
VAR G1=4/5
VAR G2=H/10/11
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M1-X2 C  AT   4
ECOUNT  IS M1-X8 C  AT   5
ECOUNT  IS M3-X8 C  AT  11

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  11

STEREO ATTRIBUTES: NONE
L24         250 SEA FILE=CASREACT SSS FUL L22 (  1711 REACTIONS)
L26          28 SEA FILE=REGISTRY ABB=ON  PLU=ON  L2 AND 1-9/X
L27          25 SEA FILE=CASREACT ABB=ON  PLU=ON  L24(L)L26
L31             STR
```




```
VAR G1=C/N
REP G2=(1-5) A
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
```

```
NUMBER OF NODES IS   6

STEREO ATTRIBUTES: NONE
L33          29 SEA FILE=CASREACT SUB=L24 SSS FUL L31 (   137 REACTIONS
                )
L34           4 SEA FILE=CASREACT ABB=ON  PLU=ON  L33(L)L26
L36           1 SEA FILE=CASREACT ABB=ON  PLU=ON  L24 AND LEWIS(A)ACID

L39           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  ("NIOBIUM PENTACHLORI
                DE"/CN OR "NIOBIUM PENTACHLORIDE (NBCL5)"/CN)
L40           0 SEA FILE=CASREACT ABB=ON  PLU=ON  L24(L)L39
L41           0 SEA FILE=CASREACT ABB=ON  PLU=ON  L24(L)10026-12-7/NPRO

L42          49 SEA FILE=CASREACT ABB=ON  PLU=ON  L27 OR L33 OR L34 OR
                L36 OR (L40 OR L41)
L43             QUE  ABB=ON  PLU=ON  PY<2004 OR PRY<2004 OR AY<2004 OR
                MY<2004 OR REVIEW/DT
L44          32 SEA FILE=CASREACT ABB=ON  PLU=ON  L42 AND L43


=> d his l80

     (FILE 'HCAPLUS' ENTERED AT 17:25:18 ON 28 DEC 2007)
L80          18 S L79 AND (L65 OR PROCESS?)

=> d que stat l80
L2           38 SEA FILE=REGISTRY ABB=ON  PLU=ON  (10025-73-7/BI OR
                10025-91-9/BI OR 10026-07-0/BI OR 10026-10-5/BI OR
                10026-11-6/BI OR 10026-12-7/BI OR 10049-06-6/BI OR
                10108-64-2/BI OR 10294-34-5/BI OR 123-91-1/BI OR
                13450-90-3/BI OR 22441-45-8/BI OR 3682-15-3/BI OR
                521-31-3/BI OR 603-11-2/BI OR 67-64-1/BI OR 67-68-5/BI
                OR 68-12-2/BI OR 7446-70-0/BI OR 7447-39-4/BI OR
                7487-94-7/BI OR 7550-45-0/BI OR 7637-07-2/BI OR
                7646-79-9/BI OR 7646-85-7/BI OR 7647-18-9/BI OR
                7697-37-2/BI OR 7705-07-9/BI OR 7705-08-0/BI OR
                7718-54-9/BI OR 7758-89-6/BI OR 7784-34-1/BI OR
                7786-30-3/BI OR 7787-47-5/BI OR 7787-60-2/BI OR
                7789-48-2/BI OR 85-44-9/BI OR 872-50-4/BI)
L3            4 SEA FILE=REGISTRY ABB=ON  PLU=ON  L2 AND ?ACID?/CNS
L4            2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L2 AND 2-9/N
L5              STR
```

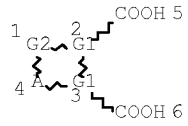



```
VAR G1=4/5
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M1-X2 C  AT   4
ECOUNT  IS M1-X8 C  AT   5

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   5

STEREO ATTRIBUTES: NONE
L6              STR
```

VAR G1=H/5/6
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M3-X8 C AT   6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   6

STEREO ATTRIBUTES: NONE
L8   SCR 1527
L9   SCR 1918 OR 2043 OR 2127
L10   SCR 1841
L12   59360 SEA FILE=REGISTRY SSS FUL L5 AND L8 NOT (L9 OR L10)
L17   SCR 1627 OR 1633
L19   67125 SEA FILE=REGISTRY SSS FUL L6 AND L17 NOT (L9 OR L10)
L26   28 SEA FILE=REGISTRY ABB=ON PLU=ON L2 AND 1-9/X
L28   STR



VAR G1=C/N
REP G2=(1-5) A
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   6

STEREO ATTRIBUTES: NONE
L30   8789 SEA FILE=REGISTRY SUB=L12 SSS FUL L28
L39   1 SEA FILE=REGISTRY ABB=ON PLU=ON ("NIOBIUM PENTACHLORI
                  DE"/CN OR "NIOBIUM PENTACHLORIDE (NBCL5)"/CN)
L43   QUE ABB=ON PLU=ON PY<2004 OR PRY<2004 OR AY<2004 OR
                  MY<2004 OR REVIEW/DT
L45   40816 SEA FILE=HCAPLUS ABB=ON PLU=ON L12/RACT
L46   20416 SEA FILE=HCAPLUS ABB=ON PLU=ON L19/RACT
L47   496 SEA FILE=HCAPLUS ABB=ON PLU=ON L45 AND L46
L48   199206 SEA FILE=HCAPLUS ABB=ON PLU=ON L26
L49   6 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 AND L48
L50   5313 SEA FILE=HCAPLUS ABB=ON PLU=ON L30/RACT
L51   90 SEA FILE=HCAPLUS ABB=ON PLU=ON L46 AND L50
L52   1 SEA FILE=HCAPLUS ABB=ON PLU=ON L51 AND L48
L53   2572 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 OR NIOBIUM(A)PENTA
                  CHLORIDE OR NBCL5 OR CL5NB
L54   0 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND (L47 OR L51)
L55   0 SEA FILE=HCAPLUS ABB=ON PLU=ON (L47 OR (L51 OR L52))
                  AND LEWIS(A)ACID
L56   6951 SEA FILE=HCAPLUS ABB=ON PLU=ON "LEWIS ACIDS"+PFT,OLD,
                  NT/CT
L57   29655 SEA FILE=HCAPLUS ABB=ON PLU=ON LEWIS(A)ACID?
L58   29655 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 OR L57
L59   0 SEA FILE=HCAPLUS ABB=ON PLU=ON L58 AND (L47 OR L51)
L65   QUE ABB=ON PLU=ON PRODUC? OR PROD# OR GENERAT? OR MA
                  NUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT?
                   OR MAKE# OR MADE# OR MAKIN# OR FABRICAT? OR SYNTHESI?

```
                OR PREPAR? OR PREP#
L67             6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L49 OR L52 OR (L54 OR
                  L55) OR L59
L71          3460 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3 AND L4
L73             2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L71 AND L58
L74           183 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L71 AND HYDRAZ?
L75           121 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L74 AND L65
L76            12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L75 AND DICARBOXYL?(A)
                  ACID?
L77             3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYDRAZ? AND DICARBOXYL
                  ?(A)ACID? AND (L58 OR L53)
L78            21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L67 OR L73 OR L76 OR
                  L77
L79            18 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L78 AND L43
L80            18 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L79 AND (L65 OR
                  PROCESS?)


=> dup rem l44 l80
PROCESSING COMPLETED FOR L44
PROCESSING COMPLETED FOR L80
L107           50 DUP REM L44 L80 (0 DUPLICATES REMOVED)
                  ANSWERS '1-32' FROM FILE CASREACT
                  ANSWERS '33-50' FROM FILE HCAPLUS
```

STRUCTURE SEARCH RESULTS

=> d l107 1-32 ibib ab fhit ind

L107 ANSWER 1 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 142:56329 CASREACT Full-text
TITLE: Preparation of 1H-imidazo[4,5-d]pyridazines as DPP-IV inhibitors for the treatment of NIDDM
INVENTOR(S): Kuroda, Akio; Sawada, Yuki; Wada, Aiko
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

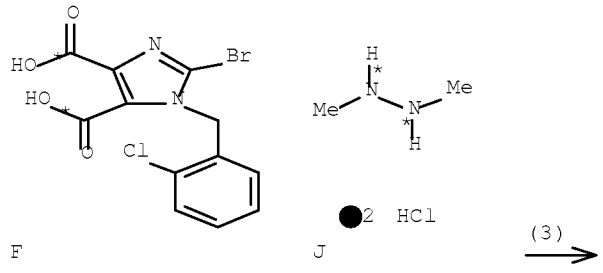
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004108730	A1	20041216	WO 2004-JP7996	20040602

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

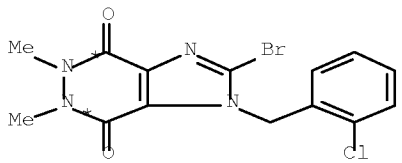
PRIORITY APPLN. INFO.: AU 2003-902828 20030605
OTHER SOURCE(S): MARPAT 142:56329

AB The title compds. I [X and Y independently = O, S, substituted imino; R1 and R2 independently = H or (lower)alkyl; R3 = (lower)alkenyl, etc.; R4 and R5 independently = H or (lower)alkyl; n = 0, 1, 2, 3 or 4] were prepared to inhibit DPP-IV activity. They are therefore useful in the treatment of conditions mediated by DPP-IV, such as NIDDM. Thus, 2-bromo-1-(2-chlorobenzyl)-1H- imidazole-4,5-dicarboxylic acid, prepd from di-Me 1H-imidazole-4,5-dicarboxylate, was cyclized with 1,2-dimethylhydrazine dihydrochloride followed by reaction with tert-Bu (S)-3-piperidinecarbamate and then hydrolysis to give the 1H-imidazo[4,5-d]pyridazine deriv II.

RX(3) OF 85 ...F + J ===> K...



F J



K

RX(3) RCT F 808736-63-2, J 306-37-6
RGT L 39968-33-7 3H-1,2,3-Triazolo[4,5-b]pyridine, 3-hydroxy-, M 1892-57-5 EtN:C:N(CH2)3NMe2
PRO K 808736-64-3
SOL 68-12-2 DMF
CON 14 hours, room temperature

IC ICM C07D487-04
ICS A61K031-5025; A61P003-10

CC 28-15 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63

ST imidazopyridazine prepn DPP inhibitor NIDDM

IT Diabetes mellitus
(non-insulin-dependent; preparation of 1H-imidazo[4,5-d]pyridazines as DPP-IV inhibitors for treatment of NIDDM)

IT Antidiabetic agents
Human
(preparation of 1H-imidazo[4,5-d]pyridazines as DPP-IV inhibitors for treatment of NIDDM)

IT 54249-88-6, DPP-IV
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of 1H-imidazo[4,5-d]pyridazines as DPP-IV inhibitors for treatment of NIDDM)

IT 808736-66-5P 808736-71-2P 808736-76-7P 808736-78-9P
808736-80-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of 1H-imidazo[4,5-d]pyridazines as DPP-IV inhibitors for treatment of NIDDM)

IT 100-39-0, Benzyl bromide 306-37-6, 1,2-Dimethylhydrazine dihydrochloride 611-17-6, 2-Chlorobenzyl bromide 3304-70-9
216854-23-8 309956-78-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 1H-imidazo[4,5-d]pyridazines as DPP-IV inhibitors for treatment of NIDDM)

IT 705280-65-5P 808736-62-1P 808736-63-2P 808736-64-3P
808736-65-4P 808736-67-6P 808736-68-7P 808736-69-8P
808736-70-1P 808736-72-3P 808736-73-4P 808736-74-5P
808736-75-6P 808736-77-8P 808736-79-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 1H-imidazo[4,5-d]pyridazines as DPP-IV inhibitors for treatment of NIDDM)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 2 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:395549 CASREACT Full-text
TITLE: Preparation of 3-oxo-1,3-dihydro-indazole-2-carboxylic acid amide derivatives as phospholipase inhibitors
INVENTOR(S): Eacho, Patrick Irving; Foxworthy-Mason, Patricia Sue; Lin, Ho-Shen; Lopez, Jose

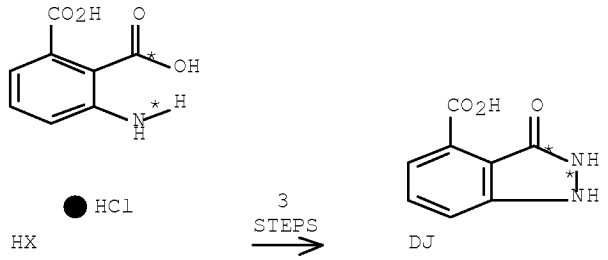
Eduardo; Mosior, Marian Kazimierz; Richett, Michael Enrico
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 131 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004093872	A1	20041104	WO 2004-US6092	20040325
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1610779	A1	20060104	EP 2004-723448	20040325
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
US 2006211755	A1	20060921	US 2005-544910	20050810
PRIORITY APPLN. INFO.:			US 2003-459362P	20030331
			WO 2004-US6092	20040325

OTHER SOURCE(S): MARPAT 141:395549

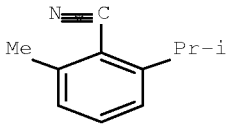
AB Title compds. I [R1 = alkyl, haloalkyl, alkenyl, alkynyl, etc.; R2 = H; R3-6 = H, alk(en/yn)yl, haloalkyl, etc.; R7 = H, alk(en/yn)yl, haloalkyl, etc.] are prepared For instance, 3-oxo-1,3-dihydroindazole-2-carboxylic acid N-propylamide is prepared from Pr isocyanate and 1,2-dihydroindazol-3-one. Selected compds. exhibited inhibitory activity toward endothelial lipase; IC50 11.39 - 45.14 nM. I are useful for the treatment of hepatic lipase and/or endothelial lipase-mediated diseases.

RX(365) OF 500 COMPOSED OF REACTION SEQUENCE RX(115), RX(65)
AND REACTION SEQUENCE RX(107), RX(121), RX(65)
... HX ===> DJ...
...HP + DX + DJ ===> EP

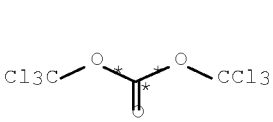


HX DJ

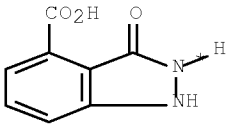
START NEXT REACTION SEQUENCE



HP

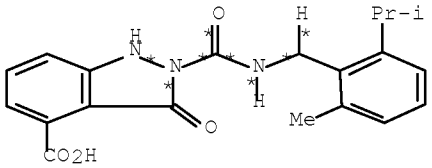


DX



DJ

3
STEPS



EP
YIELD 69%

RX(115) RCT HX 6946-22-1

STAGE(1)
RGT DP 7647-01-0 HCl
SOL 7732-18-5 Water
CON 10 minutes, -10 deg C

STAGE(2)
RGT DQ 7632-00-0 NaNO2
SOL 7732-18-5 Water
CON SUBSTAGE(1) -10 deg C
SUBSTAGE(2) 1 hour, -10 deg C

STAGE(3)
RGT DP 7647-01-0 HCl, DR 7772-99-8 SnCl2
SOL 7732-18-5 Water, 7647-01-0 HCl
CON SUBSTAGE(1) 15 minutes, -10 deg C
SUBSTAGE(2) 30 minutes, -10 deg C
SUBSTAGE(3) -10 deg C -> room temperature
SUBSTAGE(4) 16 hours, room temperature

PRO DJ 7384-17-0
NTE incremental addition of the diazotized solution in third stage

RX(107) RCT HP 786677-15-4

STAGE(1)
RGT BS 16940-66-2 NaBH4
SOL 60-29-7 Et2O
CON SUBSTAGE(1) 16 hours, room temperature
SUBSTAGE(2) room temperature -> 0 deg C

STAGE(2)
RGT BV 67-56-1 MeOH
CON 0 deg C

PRO BX 786677-17-6

RX(121) RCT BX 786677-17-6, DX 32315-10-9
RGT EA 20734-58-1 Proton sponge

```
          PRO  EO 787580-99-8
          SOL  75-09-2 CH2Cl2
          CON  SUBSTAGE(1) 0 deg C
               SUBSTAGE(2) 15 minutes, room temperature

RX(65)    RCT  DJ 7384-17-0, EO 787580-99-8
          PRO  EP 787580-05-6
          SOL  109-99-9 THF
          CON  16 hours, room temperature
          NTE  chemoselective
IC   ICM  A61K031-416
     ICS  C07D231-56; C07C275-26; A61P003-06
CC   28-8 (Heterocyclic Compounds (More Than One Hetero Atom))
     Section cross-reference(s): 1, 63
ST   dihydroindazole amide phospholipase inhibitor prepn
IT   High-density lipoproteins
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (low levels, treatment; preparation of 3-oxo-1,3-dihydro-indazole-2-
        carboxylic acid amide derivs. as phospholipase inhibitors)
IT   Human
        (preparation of 3-oxo-1,3-dihydro-indazole-2-carboxylic acid amide
        derivs. as phospholipase inhibitors)
IT   9001-62-1, Lipase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (endothelial or hepatic, inhibition; preparation of
        3-oxo-1,3-dihydro-indazole-2-carboxylic acid amide derivs. as
        phospholipase inhibitors)
IT   787578-61-4P   787578-63-6P
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (preparation of 3-oxo-1,3-dihydro-indazole-2-carboxylic acid amide
        derivs. as phospholipase inhibitors)
IT   787578-58-9P   787578-65-8P   787578-67-0P   787578-69-2P
     787578-71-6P   787578-73-8P   787578-75-0P   787578-77-2P
     787578-79-4P   787578-82-9P   787578-85-2P   787578-87-4P
     787578-89-6P   787578-91-0P   787578-93-2P   787578-95-4P
     787578-97-6P   787579-00-4P   787579-03-7P   787579-06-0P
     787579-09-3P   787579-12-8P   787579-16-2P   787579-19-5P
     787579-22-0P   787579-25-3P   787579-28-6P   787579-31-1P
     787579-33-3P   787579-36-6P   787579-39-9P   787579-42-4P
     787579-45-7P   787579-47-9P   787579-49-1P   787579-51-5P
     787579-53-7P   787579-55-9P   787579-57-1P   787579-59-3P
     787579-61-7P   787579-63-9P   787579-65-1P   787579-67-3P
     787579-69-5P   787579-71-9P   787579-73-1P   787579-75-3P
     787579-77-5P   787579-79-7P   787579-81-1P   787579-83-3P
     787579-85-5P   787579-87-7P   787579-89-9P   787579-91-3P
     787579-93-5P   787579-95-7P   787579-97-9P   787579-99-1P
     787580-01-2P   787580-03-4P   787580-05-6P   787580-07-8P
     787580-09-0P   787580-11-4P   787580-13-6P   787580-15-8P
     787580-17-0P   787580-20-5P   787580-22-7P   787580-24-9P
     787580-26-1P   787580-28-3P   787580-30-7P   787580-32-9P
     787580-34-1P   787580-36-3P   787580-38-5P   787580-40-9P
     787580-42-1P   787580-44-3P   787580-46-5P   787580-48-7P
     787580-50-1P   787580-52-3P   787580-54-5P   787580-56-7P
     787580-58-9P   787580-60-3P   787580-62-5P   787580-64-7P
     787580-66-9P   787580-68-1P   787580-70-5P   787580-72-7P
     787580-74-9P   787580-76-1P   787580-78-3P   787580-80-7P
     787583-19-1P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation);
     THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (preparation of 3-oxo-1,3-dihydro-indazole-2-carboxylic acid amide
        derivs. as phospholipase inhibitors)
IT   89-77-0   95-00-1   96-32-2, Methyl bromoacetate   100-82-3
     104-84-7, 4-Methylbenzylamine   107-18-6, Allyl alcohol, reactions
     110-78-1, Propyl isocyanate   118-31-0, 1-Naphthalenemethanamine
```

394-31-0 576-83-0 620-05-3 635-21-2 883-40-9,
Diphenyldiazomethane 2148-56-3, 2-Amino-6-chlorobenzoic acid
2305-36-4, 2-Amino-4-methylbenzoic acid 2525-62-4 3048-01-9,
2-Trifluoromethylbenzylamine 3158-26-7 3173-56-6 3177-80-8
3218-02-8, Cyclohexanemethanamine 3954-13-0 4152-90-3
4389-50-8, 2-Amino-6-methylbenzoic acid 4403-71-8 4441-66-1,
Cyclohexanebutanenitrile 4746-31-0, 5-Methylhexylamine
5071-96-5 5266-85-3, 2-Isopropyl-6-methylaniline 5292-43-3,
tert-Butyl bromoacetate 6946-22-1, 3-Aminophthalic acid
hydrochloride 7364-25-2, 1,2-Dihydroindazol-3-one 7364-33-2
7617-76-7, 3-Phenoxypropylamine 7693-46-1, 4-Nitrophenyl
chloroformate 10312-55-7 13117-94-7 13214-66-9,
4-Phenylbutylamine 17376-04-4 17413-10-4 18638-99-8
19293-58-4 20781-20-8 27917-13-1 33890-03-8,
4-Aminoisophthalic acid 34136-59-9, 2-Ethylbenzonitrile
35278-77-4 36062-93-8 37491-68-2 39622-79-2 40393-99-5
56004-83-2 56651-58-2 57190-17-7 61924-25-2 65232-57-7
74788-82-2, 2,6-Dimethylbenzylamine 82593-25-7 88358-65-0
93071-75-1 93071-79-5 95881-22-4, 2-Ethyl-6-methylbenzonitrile
150517-76-3 175278-39-4 177976-49-7, [1,1'-Biphenyl]-3-
methanamine 181473-92-7 261951-69-3 771580-36-0
862274-40-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 3-oxo-1,3-dihydro-indazole-2-carboxylic acid amide
derivs. as phospholipase inhibitors)

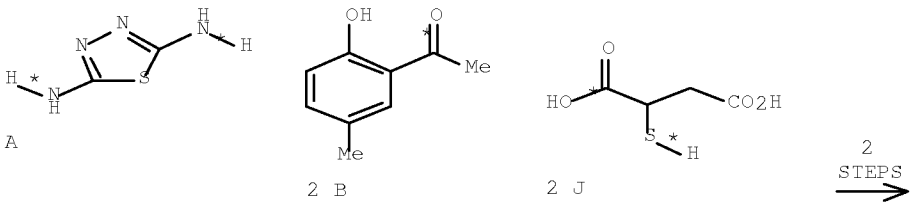
IT 7364-28-5P 7364-29-6P 7384-17-0P 53759-86-7P 55204-86-9P
77725-08-7P 82722-05-2P 92277-70-8P 220707-47-1P
301530-53-0P 344749-53-7P 786676-85-5P 786677-15-4P
786677-17-6P 787580-82-9P 787580-87-4P 787580-89-6P
787580-91-0P 787580-93-2P 787580-95-4P 787580-97-6P
787580-99-8P 787581-01-5P 787581-03-7P 787581-05-9P
787581-07-1P 787581-09-3P 787581-11-7P 787581-13-9P
787581-15-1P 787581-17-3P 787581-19-5P 787581-21-9P
787581-23-1P 787581-25-3P 787581-27-5P 787581-29-7P
787581-31-1P 787581-33-3P 787581-35-5P 787581-37-7P
787581-39-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation of 3-oxo-1,3-dihydro-indazole-2-carboxylic acid amide
derivs. as phospholipase inhibitors)

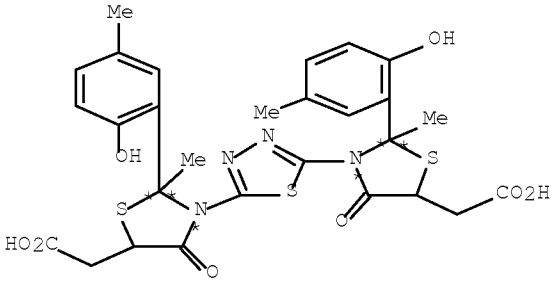
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L107 ANSWER 3 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:36111 CASREACT Full-text
TITLE: Preparation and comparative studies of some substituted 4-thiazolidinone, 2-azetidinone and their 1,3,4-thiadiazole derivatives
AUTHOR(S): Kanzariya, C. R.; Shah, M. K.
CORPORATE SOURCE: Department of Chemistry, Saurashtra University, Rajkot, 360 005, India
SOURCE: Oriental Journal of Chemistry (2003), 19(3), 677-680
CODEN: OJCHEG; ISSN: 0970-020X
PUBLISHER: Oriental Scientific Publishing Co.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Thiadiazoles having an amino group have been reported to possess insecticidal, herbicidal and pesticidal properties. Other thiadiazoles have been tried as chemotherapeutics and some derivs. showed considerable promise as remedies for infections in the gastrointestinal tract. 2,5-Diamino-1,3,4-thiadiazole was formed in 25% yield by the action of phosphorous oxychloride on 1-carbamoyl thiosemicarbazide.

RX(8) OF 9 COMPOSED OF RX(1), RX(4)
RX(8) A + 2 B + 2 J ===> K





YIELD 45%

RX(1) RCT A 2937-81-7, B 1450-72-2
PRO C 124983-66-0
SOL 64-17-5 EtOH
CON 2 hours, reflux

RX(4) RCT C 124983-66-0, J 70-49-5
RGT L 7646-85-7 ZnCl2
PRO K 124983-84-2
CON 30 minutes, 160 deg C

CC 10-5 (Microbial, Algal, and Fungal Biochemistry)
ST bactericide thiazolidinone azetidinone thiadiazole deriv
IT Antibacterial agents
Escherichia coli
Salmonella typhi
Staphylococcus aureus
(preparation and antibacterial activity of substituted 4-thiazolidinone, 2-azetidinone and their 1,3,4-thiadiazole derivs.)
IT 124983-66-0P 124983-72-8P 124983-78-4P 124983-84-2P 124983-90-0P
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation and antibacterial activity of substituted 4-thiazolidinone, 2-azetidinone and their 1,3,4-thiadiazole derivs.)
IT 68-11-1, reactions 70-49-5, Thiomalic acid 79-42-5, Thiolactic acid 1450-72-2 2937-81-7, 2,5-Diamino-1,3,4-thiadiazole
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and antibacterial activity of substituted 4-thiazolidinone, 2-azetidinone and their 1,3,4-thiadiazole derivs.)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 4 OF 50 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 139:45808 CASREACT Full-text

TITLE: Zinc thiosemicarbazide dicarboxylates: the influence of the anion shape on supramolecular structure

AUTHOR(S): Babb, Jennifer E. V.; Burrows, Andrew D.; Harrington, Ross W.; Mahon, Mary F.

CORPORATE SOURCE: Department of Chemistry, University of Bath, Claverton Down, Bath, BA2 7AY, UK

SOURCE: Polyhedron (2003), 22(5), 673-686
CODEN: PLYHDE; ISSN: 0277-5387

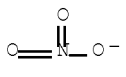
PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

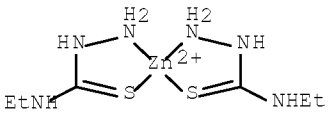
LANGUAGE: English

AB The syntheses and crystal structures of the Zn thiosemicarbazide dicarboxylate compds. [Zn(tsc)2(OH2)2][fumarate] (2), [Zn(tsc)2(citraconate)]·H2O (3), [Zn(tsc)(μ-1,4-phenylenediacetate)] (4), [Zn(Ettsc)2(citraconate)]·3H2O (5), [Zn(Ettsc)2(Hphthalate)][Hphthalate]·H2O (6), [Zn(Metsc)2(Hphthalate)][Hphthalate]·H2O (7), [Zn(Me2tsc)2(OH2)][terephthalate]·2H2O (8) and [Zn(EtMe2tsc)2(OH2)][terephthalate] (9) (tsc = thiosemicarbazide, Rtsc = substituted thiosemicarbazide) are reported. The supramol. structures of the terephthalate and fumarate compds. 2, 8 and 9 consist of chains of cations and anions, in which the ions are linked by H bonding. In contrast, compds. 3, 5, 6 and 7 contain carboxylate groups coordinated to the metal center to give either neutral or monocationic species. These differences can be rationalized from the dicarboxylate structure, in particular the angle between the carboxylate vectors. Compound 4 forms coordination polymers in an analogous manner to thiourea derivs.

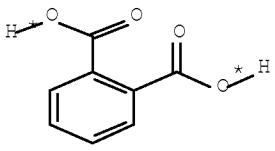
RX(5) OF 21 ...I + K ===> L



I: CM 1



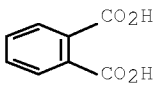
I: CM 2



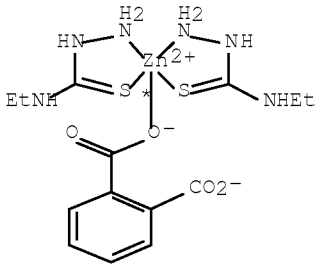
Na

K

(5) →



L: CM 1
YIELD 70%



L: CM 2
YIELD 70%

RX(5) RCT I 543742-32-1, K 827-27-0
RGT D 7732-18-5 Water
PRO L 543742-20-7
SOL 7732-18-5 Water
CON 24 hours, room temperature

CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 75

ST zinc thiosemicarbazide dicarboxylate prepn supramol structure hydrogen bond; crystal structure zinc thiosemicarbazide complex dicarboxylate anion

IT Transition metal complexes
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(carbazide; preparation and crystal structure of zinc thiosemicarbazide complexes and influence of dicarboxylate anion shape on supramol. structure)

IT Carboxylic acids, reactions
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(dicarboxylic; influence of dicarboxylate anion shape on supramol. structure of zinc thiosemicarbazide complexes)

IT Hydrogen bond
(in zinc thiosemicarbazide complexes with dicarboxylate anions)

IT Supramolecular structure
(influence of dicarboxylate anion shape on supramol. structure of zinc thiosemicarbazide complexes)

IT Crystal structure
Molecular structure
(of zinc thiosemicarbazide complexes with dicarboxylate anions)

IT 79-19-6, Thiosemicarbazide 2289-53-4 6297-31-0 6610-29-3 13431-34-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(for preparation of zinc thiosemicarbazide complexes)

IT 827-27-0, Monosodium phthalate 10028-70-3, Sodium terephthalate 17013-01-3, Disodium fumarate 21547-66-0, Disodium citraconate 41374-97-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(for preparation of zinc thiosemicarbazide complexes with dicarboxylate anions)

IT 543742-17-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polymeric; preparation and crystal and supramol. structure)

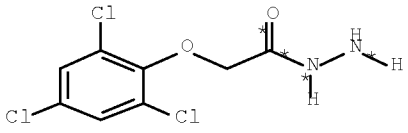
IT 543742-15-0P 543742-16-1P 543742-18-3P 543742-20-7P 543742-22-9P 543742-25-2P 543742-28-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal and supramol. structure)

IT 23408-45-9P 543742-30-9P 543742-32-1P 543742-34-3P 543742-36-5P

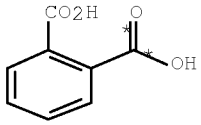
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with sodium dicarboxylates)
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 5 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 138:368821 CASREACT Full-text
TITLE: Synthesis and antimicrobial activity of 1,2,4-triazoles
AUTHOR(S): Patel, K. D.; Mistry, B. D.; Desai, K. R.
CORPORATE SOURCE: Department of Chemistry, B. K. M. Science College, Valsad, 396 001, India
SOURCE: Journal of the Indian Chemical Society (2002), 79(12), 964-965
CODEN: JICSAH; ISSN: 0019-4522
PUBLISHER: Indian Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Several aryl and mercapto-1,2,4-triazoles, e.g. I and II, were prepared via cyclization and condensation of aryl oxadiazoles with 4-methoxy aniline or mercapto-triazoles with aromatic aldehydes and evaluated for their antimicrobial activity.

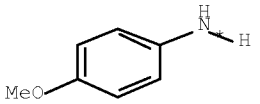
RX(4) OF 90 ...F + Q + J ===> R



F

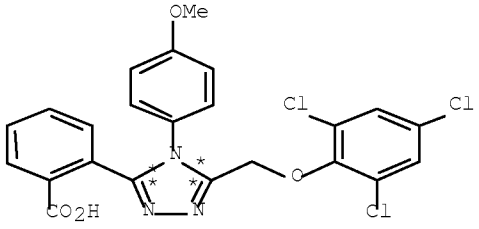


Q



J

(4)



R
YIELD 70%

RX(4) RCT F 190588-40-0, Q 88-99-3

STAGE(1)
SOL 10025-87-3 POCl3
CON 5 - 6 hours, reflux

STAGE(2)
RGT L 144-55-8 NaHCO3
SOL 7732-18-5 Water

STAGE(3)
RCT J 104-94-9
SOL 110-86-1 Pyridine
CON 6 - 8 hours, reflux

STAGE(4)
RGT M 7647-01-0 HCl
SOL 7732-18-5 Water

PRO R 523999-30-6

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 10

ST aryl mercapto triazole synthesis cyclization condensation antimicrobial; bactericide triazole synthesis

IT Infection
(bacterial; synthesis and antimicrobial activity of 1,2,4-triazoles via cyclization and condensation of aryl oxadiazoles with 4-methoxy aniline or mercapto-triazoles with aromatic aldehydes)

IT Structure-activity relationship
(bactericidal; synthesis and antimicrobial activity of 1,2,4-triazoles via cyclization and condensation of aryl oxadiazoles with 4-methoxy aniline or mercapto-triazoles with aromatic aldehydes)

IT Antibacterial agents
(synthesis and antimicrobial activity of 1,2,4-triazoles via cyclization and condensation of aryl oxadiazoles with 4-methoxy aniline or mercapto-triazoles with aromatic aldehydes)

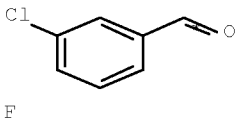
IT 523999-29-3P 523999-30-6P 523999-31-7P 523999-32-8P
523999-33-9P 523999-34-0P 523999-35-1P 523999-36-2P
523999-37-3P 523999-38-4P 523999-41-9P 523999-42-0P
523999-43-1P 523999-44-2P 523999-45-3P 523999-46-4P
523999-47-5P 523999-48-6P 523999-49-7P 523999-50-0P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and antimicrobial activity of 1,2,4-triazoles via cyclization and condensation of aryl oxadiazoles with 4-methoxy aniline or mercapto-triazoles with aromatic aldehydes)

IT 62-23-7, 4-Nitro benzoic acid 69-72-7, 2-Hydroxy benzoic acid, reactions 88-06-2, 2,4,6, Trichlorophenol 88-99-3, 1,2-Benzenedicarboxylic acid, reactions 90-02-8, 2-Hydroxybenzaldehyde, reactions 99-61-6, 3-Nitrobenzaldehyde 99-96-7, 4-Hydroxy benzoic acid, reactions 100-10-7, 4 Dimethylamino benzaldehyde 103-82-2, Phenylacetic acid, reactions 104-87-0, 4-Methyl benzaldehyde 104-94-9, 4-Methoxy aniline 105-39-5, Ethyl chloroacetate 121-33-5, 3-Methoxy 4 hydroxy benzaldehyde 123-11-5, 4-Methoxybenzaldehyde, reactions 529-23-7, 2-Amino benzaldehyde 552-16-9, 2-Nitro benzoic acid 552-89-6, 2-Nitrobenzaldehyde 555-16-8, 4-Nitrobenzaldehyde, reactions 587-04-2, 3-Chlorobenzaldehyde 621-82-9, Cinnamic acid, reactions 39515-51-0, 3-Phenoxy benzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and antimicrobial activity of 1,2,4-triazoles via cyclization and condensation of aryl oxadiazoles with 4-methoxy aniline or mercapto-triazoles with aromatic aldehydes)

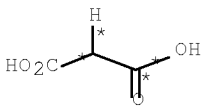
IT 14426-43-8P, Ethyl 2,4,6-trichlorophenoxyacetate 190588-40-0P
523999-39-5P 523999-40-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(synthesis and antimicrobial activity of 1,2,4-triazoles via
cyclization and condensation of aryl oxadiazoles with 4-methoxy
aniline or mercapto-triazoles with aromatic aldehydes)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L107 ANSWER 6 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 136:183796 CASREACT Full-text
TITLE: Toward the manufacture of indoxacarb
AUTHOR(S): Shapiro, R.; Annis, G. D.; Blaisdell, C. T.;
Dumas, D. J.; Fuchs, J.; Griswold, S. M.;
Highley, G. W., Jr.; Hollinsed, W. C.; Mrowca,
J. J.; Sternberg, J. A.; Wojtkowski, P.
CORPORATE SOURCE: Agricultural Products Department, Process
Development Group, Stine-Haskell Research
Center, DuPont, Newark, DE, 19714, USA
SOURCE: ACS Symposium Series (2002),
800(Synthesis and Chemistry of Agrochemicals
VI), 178-185
CODEN: ACSMC8; ISSN: 0097-6156
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The discovery and development of a novel process for the preparation of (+)-indoxacarb I is described. The key step in the preparation of I is the unprecedented enantioselective hydroxylation of the methoxycarbonylindanone II with tert-Bu hydroperoxide in the presence of cinchonine to give the hydroxyindanonecarboxylate III in 50% ee. While the initial synthesis of the racemate of I used the condensation reaction of the hydrazone of racemic III with carbamoyl chloride IV followed by cyclocondensation with diethoxymethane to prepare the title compound, the enhanced solubility of nonracemic III and subsequent derivs. forced significant process refinements in the synthesis of I. Nonracemic I was ultimately prepared by condensation of III with benzyl carbazate, condensation of the benzyloxycarbonyl hydrazone with diethoxyethane in the presence of p-toluenesulfonic acid in toluene (with distillation of the ethanol byproduct), deprotection, and acylation with IV to provide nonracemic I; the final three steps were all performed in toluene as the solvent and gave I in 80% yield over the three steps.

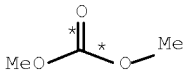
RX(83) OF 127 COMPOSED OF RX(3), RX(4), RX(5), RX(13), RX(14)
RX(83) F + G + N + AO ===> AP



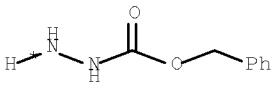
F



G

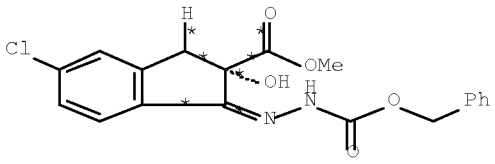


N



AO

5
STEPS



AP

RX(3) RCT F 587-04-2, G 141-82-2

STAGE(1)

STAGE(2)
RGT I 1333-74-0 H2
CAT 7440-05-3 Pd

PRO H 21640-48-2

RX(4) RCT H 21640-48-2

STAGE(1)
RGT L 7719-09-7 SOCl2

STAGE(2)
CAT 7446-70-0 AlCl3

PRO K 42348-86-7

RX(5) RCT K 42348-86-7, N 616-38-6
RGT P 124-41-4 NaOMe
PRO O 65738-56-9

RX(13) RCT O 65738-56-9
RGT AL 75-91-2 t-BuOOH
PRO AK 173903-18-9
CAT 118-10-5 Cinchonine
SOL 108-88-3 PhMe
NTE KEY STEP, stereoselective, enantioselective, product in 45% ee, enrichment to >95% can be performed by extn. with hexanes followed by prolonged standing but causes significant material loss

RX(14) RCT AK 173903-18-9, AO 5331-43-1
PRO AP 399572-31-7

CC 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))

ST indoxacarb nonracemic prepn; stereoselective enantioselective hydroxylation methoxycarbonylindanone tert butyl hydroperoxide cinchonine catalyst; modification racemic indoxacarb synthesis prepn nonracemic material; process refinement nonracemic prepn indoxacarb

IT Asymmetric synthesis and induction
(preparation and process refinements in preparation of nonracemic indoxacarb using cinchonine-catalyzed asym. hydroxylation of methoxycarbonylindanone as key step)

IT Hydroxylation
Hydroxylation catalysts
(stereoselective; preparation and process refinements in preparation of

nonracemic indoxacarb using cinchonine-catalyzed asym. hydroxylation of methoxycarbonylindanone as key step)

IT 74-85-1, Ethylene, reactions 1878-66-6, 4-Chlorophenylacetic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(alternate preparation of an intermediate in preparation of nonracemic indoxacarb)

IT 17556-18-2P, 6-Chloro-2-tetralone 252989-39-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(alternate preparation of an intermediate in preparation of nonracemic indoxacarb)

IT 104-15-4, p-Toluenesulfonic acid, uses
RL: CAT (Catalyst use); USES (Uses)
(improved catalyst in cyclocondensation of diethoxymethane with a hydrazone intermediate to give an oxadiazine intermediate in preparation of nonracemic indoxacarb)

IT 399572-29-3P 399572-30-6P
RL: IMF (Industrial manufacture); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(improved toluene solubility of the triethylammonium salt of methoxycarbonylindanone intermediate over the sodium salt in preparation of racemic indoxacarb)

IT 75-91-2, tert-Butyl hydroperoxide
RL: RGT (Reagent); RACT (Reactant or reagent)
(optimal oxidant in enantioselective cinchonine-catalyzed oxidation of methoxycarbonylindanone to give an intermediate in preparation of nonracemic indoxacarb)

IT 173584-44-6P, Indoxacarb
RL: AGR (Agricultural use); IMF (Industrial manufacture); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and process refinements in preparation of nonracemic indoxacarb using cinchonine-catalyzed asym. hydroxylation of methoxycarbonylindanone as key step)

IT 118-10-5, Cinchonine
RL: CAT (Catalyst use); USES (Uses)
(preparation and process refinements in preparation of nonracemic indoxacarb using cinchonine-catalyzed asym. hydroxylation of methoxycarbonylindanone as key step)

IT 616-38-6P, Dimethyl carbonate 21640-48-2P 42348-86-7P, 5-Chloro-1-indanone 65738-56-9P 173903-15-6P 173903-18-9P 173903-20-3P 173903-21-4P 177905-10-1P 399572-31-7P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and process refinements in preparation of nonracemic indoxacarb using cinchonine-catalyzed asym. hydroxylation of methoxycarbonylindanone as key step)

IT 79-22-1, Methoxycarbonyl chloride 109-87-5, Dimethoxymethane 141-82-2, Malonic acid, reactions 461-82-5, 4-(Trifluoromethoxy)aniline 462-95-3, Diethoxymethane 587-04-2 5331-43-1, Benzyl carbazate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and process refinements in preparation of nonracemic indoxacarb using cinchonine-catalyzed asym. hydroxylation of methoxycarbonylindanone as key step)

IT 144171-61-9P
RL: AGR (Agricultural use); IMF (Industrial manufacture); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(process for the preparation of racemic indoxacarb)

IT 144172-24-7P 144172-26-9P 177905-09-8P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for the preparation of racemic indoxacarb)

IT 108-88-3, Toluene, uses

RL: NUU (Other use, unclassified); USES (Uses)
(use of toluene as solvent in preparation of nonracemic indoxacarb using cinchonine-catalyzed asym. hydroxylation of methoxycarbonylindanone as key step)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 7 OF 50 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 120:322616 CASREACT Full-text

TITLE: Potentially tautomeric 1,2,3,4-tetrahydro-1,4-dioxo-5H-pyridazino[4,5-b]indole

AUTHOR(S): Guven, Alaattin; Jones, R. Alan

CORPORATE SOURCE: Sch. Chem. Sci., Univ. East Anglia, Norwich, NR4 7TJ, UK

SOURCE: Tetrahedron (1993), 49(48), 11145-54
CODEN: TETRAB; ISSN: 0040-4020

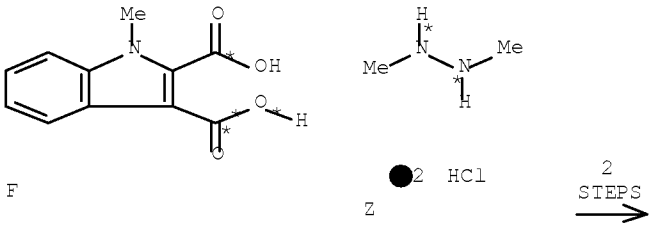
DOCUMENT TYPE: Journal

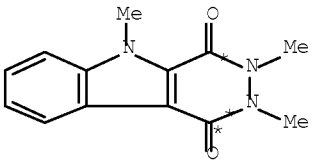
LANGUAGE: English

AB The tautomeric 1,4-dioxygenated pyridazinoindole 1 exists in aqueous solution as a mixture of all four tautomeric forms (I,II,III,IV). The predominant tautomeric form is the 4-hydroxy-1-oxo compound II. The relative abundance of the four forms I .dblharw. II .dblharw. III .dblharw. IV at equilibrium is 104.93:108.03:103.61:1.

RX(21) OF 30 COMPOSED OF RX(9), RX(10)

RX(21) F + Z ===> AA





AA
YIELD 50%

RX(9) RCT F 121195-61-7
RGT Y 108-24-7 Ac2O
PRO X 155091-22-8
SOL 108-24-7 Ac2O

RX(10) RCT X 155091-22-8, Z 306-37-6

RGT AB 127-09-3 AcONa
PRO AA 155091-23-9
SOL 110-80-5 EtOCH2CH2OH, 7732-18-5 Water
CC 22-12 (Physical Organic Chemistry)
ST tautomerism tetrahydrodioxopyridazinoindole; protonation tetrahydrodioxopyridazinoindole UV spectra
IT Ionization in liquids
Protonation and Proton transfer reaction
(tautomeric tetrahydrodioxopyridazinoindole)
IT Ultraviolet and visible spectra
(tautomeric tetrahydrodioxopyridazinoindole and protonated forms)
IT Tautomerism and Tautomers
(tetrahydrodioxopyridazinoindole)
IT 155091-29-5 155091-30-8 155091-31-9 155091-32-0
155091-33-1 155091-34-2 155091-35-3 155091-36-4
155091-37-5 155091-38-6 155112-40-6 155112-41-7
RL: PRP (Properties)
(UV spectra)
IT 155091-26-2 155091-27-3 155091-28-4
RL: PRP (Properties)
(UV spectra, tautomerism)
IT 155091-21-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and protonation)
IT 155091-18-2P 155091-20-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with hydrochloric acid and methanol)
IT 155091-24-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with sodium methoxide)
IT 155091-23-9P 155091-25-1P 155091-40-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, protonation)
IT 121195-61-7P 155091-39-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, reaction)
IT 155091-17-1P 155091-19-3P 155112-36-0P 155112-37-1P
155112-38-2P 155112-39-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, tautomerism)
IT 80985-55-3P 155112-33-7P 155112-34-8P 155112-35-9P,
5H-Pyridazino[4,5-b]indole-1,4-diol
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, tautomerism, aqueous solution)
IT 12408-02-5
RL: PRP (Properties)
(protonation and Proton transfer reaction, tautomeric tetrahydrodioxopyridazinoindole)
IT 155091-22-8
RL: PRP (Properties)
(reaction with dimethylhydrazine)
IT 54781-93-0 82633-34-9
RL: PRP (Properties)
(reaction with hydrazine in refluxing ethanol)
IT 154953-21-6 154953-33-0
RL: PRP (Properties)
(reaction with iodomethane, followed by treatment with KOH and K ferricyanide)

L107 ANSWER 8 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 121:34970 CASREACT Full-text
TITLE: The cyclization of (Z)- and (E)-3-ethoxycarbonyl-4-(3'-chloro-6'-

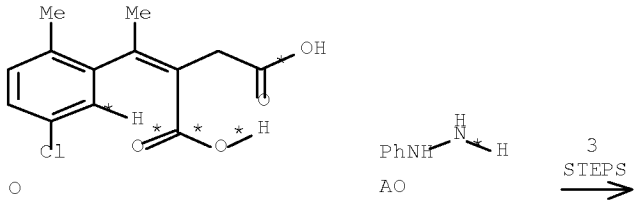
methylphenyl)-but-3-enoic acid and synthesis of polysubstituted naphthoic acid

AUTHOR(S): Mahmoud, M. R.
CORPORATE SOURCE: Fac. Sci., Ain Shams Univ., Cairo, Egypt

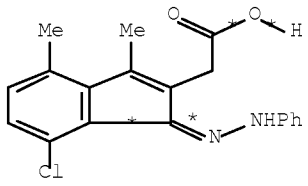
SOURCE: Journal of the Chemical Society of Pakistan (1993), 15(4), 247-51
CODEN: JCSPDF; ISSN: 0253-5106
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Condensing 5-chloro-2-methylacetophenone with di-Et succinate in the presence of KOBu-t (Z)- and (E)-butenoate I. Cyclization of I with Ac2O gave naphthalene II (R = Ac, H, Me; R1 = H, Me, Et) and oxoindenyl acid III via the anhydride IV, resp. The reactions of (E)-IV with aromatic hydrocarbons, amines and anhydrous AlCl3 in Cl2CHCHCl2were also investigated.

RX(57) OF 62 COMPOSED OF RX(6), RX(15), RX(17)
RX(57) O + AO ===> AP



AO



AP

RX(6) RCT O 155651-99-3
RGT U 75-36-5 AcCl
PRO T 155652-09-8

RX(15) RCT T 155652-09-8
RGT L 7446-70-0 AlCl3
PRO AM 155652-10-1
SOL 79-34-5 Cl2HCCHCl2

RX(17) RCT AM 155652-10-1, AO 100-63-0
PRO AP 155652-11-2
SOL 71-36-3 BuOH

CC 25-24 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

ST cyclization benzylidenesuccinate; naphthalenecarboxylic acid chloro alkyl; indenone carboxyl chloro alkyl

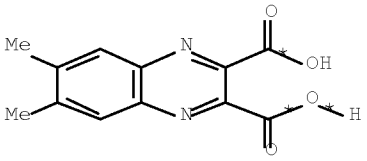
IT Ring closure and formation
(of benzylidenesuccinates, naphthoic acids from)

IT 123-25-1, Diethyl succinate
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with chloroacetophenone derivative)
IT 58966-35-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of, with succinic anhydride)
IT 108-24-7, Acetic anhydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization by, of butenoate half-ester)
IT 155651-98-2P 155651-99-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and anhydride formation from)
IT 155651-96-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of, to naphthoic acid or indenecarboxylate)
IT 155652-09-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclization of)
IT 155651-93-7P 155651-94-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
IT 155651-95-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and methylation of)
IT 155652-05-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with hydrazine)
IT 155652-10-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with hydrazine or phenylhydrazine)
IT 155651-91-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of, in preparation of naphthoic acids and indenecarboxylates)
IT 155651-92-6P 155651-97-1P 155652-00-9P 155652-01-0P
155652-02-1P 155652-03-2P 155652-04-3P 155652-06-5P
155652-07-6P 155652-08-7P 155652-11-2P 155652-12-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 71-43-2, Benzene, reactions 100-66-3, Anisole, reactions
108-88-3, Toluene, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzylidenesuccinic anhydride derivative, (aryloylmethyl)butenoic acids from)
IT 62-53-3, Aniline, reactions 100-46-9, Benzylamine, reactions
106-49-0, p-Toluidine, reactions 134-32-7, α-Naphthyl amine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzylidenesuccinic anhydride derivative, butenamides from)
IT 75-36-5, Acetyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dibasic acid, anhydride formation from)
IT 100-63-0, Phenylhydrazine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with indenonecarboxylate)

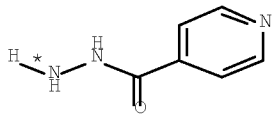
ACCESSION NUMBER: 119:160219 CASREACT Full-text
TITLE: A facile synthesis and reactions of 6,7-dimethylquinoxaline-2,3-dicarboximides
AUTHOR(S): Mohamed, Yehia A.; Ammar, Yousry A.; El-Sharief, Ahmed M. S.; Zahran, Medhat A.
CORPORATE SOURCE: Fac. Sci., Al-Azhar Univ., Nasr, Egypt
SOURCE: Afinidad (1993), 50(444), 123-6
CODEN: AFINAE; ISSN: 0001-9704
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The cyclocondensation of 4,5-Me2C6H2(NH2)2-1,2 with Na dihydroxytartarate in H2O gave 68% 6,7-dimethyl-2,3- quinoxalinedicarboxylic acid, which was dehydrated in refluxing Ac2O to give the anhydride I. Treatment of I with 4-RC6H4NH2 (R = H, Me, MeO, Br, Cl) gave the amides II and treatment with R1OH (R1 = Me, Et, ClCH2CH2, Me2CH, Ph, 2-MeC6H4) gave the esters III. II cyclized in refluxing Ac2O to give dicarboximides IV. IV (R = H, Me, MeO) cyclocondensed with H2NNH2 to give dioxopyridazinoquinoxaline V. A number of other reactions of 6,7-dimethylquinoxaline-2,3-dicarboxylic acid and -dicarboximides are also reported.

RX(16) OF 36 COMPOSED OF RX(1), RX(11)
RX(16) A + X ===> Y

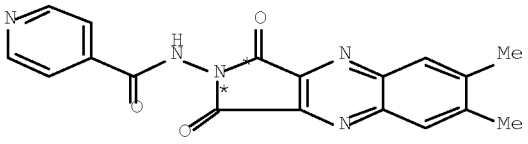


A



X

2 STEPS



Y
YIELD 81%

RX(1) RCT A 36251-98-6
RGT C 108-24-7 Ac2O
PRO B 36251-99-7

RX(11) RCT X 54-85-3, B 36251-99-7
PRO Y 149977-23-1
SOL 64-19-7 AcOH

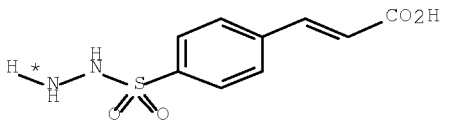
CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
ST quinoxalinedicarboximide prepn reaction; methylquinoxalinedicarboxylic acid anhydride prepn amidation esterification; pyridazinoquinoxaline dioxo; hydroxytartarate cyclocondensation methylphenylenediamine; carbamoylquinoxalinecarboxylic acid prepn intramol cyclocondensation

IT 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of, with dimethylquinoxalinedicarboximides and related compds.)
IT 98-64-6, 4-Chlorobenzenesulfonamide 106-40-1, 4-Bromoaniline
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of, with dimethylquinoxalinedicarboxylic acid anhydride)
IT 104-94-9, 4-Methoxyaniline
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of, with dimethylquinoxalinedicarboxylic acid anhydride or related compound)
IT 866-17-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with dimethylphenylenediamine)
IT 54-85-3 613-94-5, Benzoylhydrazine
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with dimethylquinoxalinedicarboxylic acid anhydride)
IT 3171-45-7, 4,5-Dimethyl-o-phenylenediamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with sodium dihydroxytartarate)
IT 149977-00-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and amidation with piperidine and morpholine)
IT 149976-94-3P 149977-02-6P 149977-03-7P 149977-04-8P
149977-05-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclodehydration of)
IT 149977-12-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
IT 36252-00-3P 36252-03-6P 149976-95-4P 149976-97-6P
149976-98-7P 149976-99-8P 149977-01-5P 149977-06-0P
149977-07-1P 149977-08-2P 149977-09-3P 149977-14-0P
149977-15-1P 149977-16-2P 149977-17-3P 149977-18-4P
149977-19-5P 149977-20-8P 149977-21-9P 149977-22-0P
149977-23-1P 149977-24-2P 149977-25-3P 149977-26-4P
149977-27-5P 149977-28-6P 149977-29-7P 149977-30-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 36251-99-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, amidation, cyclocondensation with hydrazides, and esterification with alcs. and phenols)
IT 36251-98-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, dehydration, and acid chlorination-esterification of)
IT 149976-96-5P 149977-10-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, hydrolysis, and cyclocondensation with hydrazine)
IT 149977-11-7P 149977-13-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, hydrolysis, cyclocondensation with hydrazine and aminolysis of)

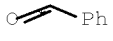
L107 ANSWER 10 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 117:251263 CASREACT Full-text
TITLE: Preparation and antimicrobial activity of 4-(2'-aryl-5'-H/methyl/carboxymethyl-4'-thiazolidinon-3'-yl-aminosulfonyl)cinnamic acids
AUTHOR(S): Shah, K. C.; Baxi, A. J.

CORPORATE SOURCE: Dep. Chem., Saurashtra Univ., Rajkot, 360005, India
SOURCE: Indian Journal of Heterocyclic Chemistry (1992), 1(5), 253-8
CODEN: IJCHEI; ISSN: 0971-1627
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Title compds. I [R = Ph, p-(Me2N)C6H4, p-MeOC6H4, p-HOC6H4, o-HOC6H4, cinnamyl, 4-hydroxy-3-methoxyphenyl, 4-H2NC6H4, 3,4-dihydroxyphenyl, 2,4-dichlorophenyl, p-ClC6H4, 2,6-dichlorophenyl, m-O2NC6H4, o-MeOC6H4, m-MeOC6H4, o-ClC6H4, o-O2NC6H4, 3-H2NC6H4, 3,4-dichlorophenyl, 2-hydroxynaphthyl; R1 = H, Me, CH2CO2H] were prepared by the addition condensation of 4-benzalhydrazinosulfonylcinnamic acid II with thioglycolic acid, 2-mercaptopropionic acid and 2-mercaptosuccinic acid. The structures of the compds. have been confirmed by elemental analyses and spectral studies. The products have been screened for their antimicrobial activity.

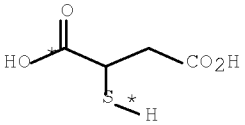
RX(7) OF 7 COMPOSED OF RX(1), RX(4)
RX(7) A + B + I ===> J



A

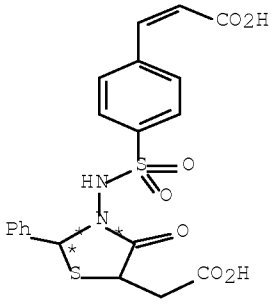


B



I

2 STEPS →



J

RX(1) RCT A 17641-31-5, B 100-52-7
PRO C 143876-46-4
SOL 123-91-1 Dioxane

RX(4) RCT C 143876-46-4, I 70-49-5
RGT K 7646-85-7 ZnCl2

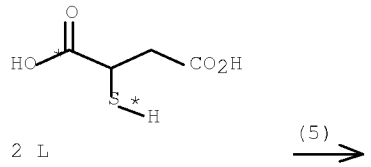
PRO J 143877-02-5
CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 10, 25
ST thiazolidinone aminosulfonylcinnamic acid prepn antimicrobial
IT Bactericides, Disinfectants, and Antiseptics
Fungicides and Fungistats
(thiazolidinone aminosulfonylcinnamic acid derivs.)
IT 68-11-1, Thioglycolic acid, reactions 70-49-5,
2-Mercaptosuccinic acid 79-42-5, 2-Mercaptopropionic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition-cyclocondensation reaction of, with
benzalhydrazinosulfonylcinnamic acid)
IT 17641-35-9P 17641-36-0P 17641-37-1P 143876-46-4P
143876-47-5P 143876-48-6P 143876-49-7P 143876-50-0P
143876-51-1P 143876-52-2P 143876-53-3P 143876-54-4P
143876-55-5P 143876-56-6P 143876-57-7P 143876-58-8P
143876-59-9P 143876-60-2P 143876-61-3P 143876-62-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and addition-cyclocondensation reaction of, with mercapto
carboxylic acids)
IT 143876-63-5P 143876-64-6P 143876-65-7P 143876-66-8P
143876-67-9P 143876-68-0P 143876-69-1P 143876-70-4P
143876-71-5P 143876-72-6P 143876-73-7P 143876-74-8P
143876-75-9P 143876-76-0P 143876-77-1P 143876-78-2P
143876-79-3P 143876-80-6P 143876-81-7P 143876-82-8P
143876-83-9P 143876-84-0P 143876-85-1P 143876-86-2P
143876-87-3P 143876-88-4P 143876-89-5P 143876-90-8P
143876-91-9P 143876-92-0P 143876-93-1P 143876-94-2P
143876-95-3P 143876-96-4P 143876-97-5P 143876-98-6P
143876-99-7P 143877-00-3P 143877-01-4P 143877-02-5P
143877-03-6P 143877-04-7P 143877-05-8P 143877-06-9P
143877-07-0P 143877-08-1P 143877-09-2P 143877-10-5P
143877-11-6P 143877-12-7P 143877-13-8P 143877-14-9P
143877-15-0P 143877-16-1P 143877-17-2P 143877-18-3P
143877-19-4P 143877-20-7P 143877-21-8P 145226-12-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 17641-31-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aromatic aldehydes)
IT 83-38-5, 2,6-Dichlorobenzaldehyde 89-98-5, o-Chlorobenzaldehyde
90-02-8, o-Hydroxybenzaldehyde, reactions 99-61-6,
m-Nitrobenzaldehyde 100-10-7, p-(Dimethylamino)benzaldehyde
100-52-7, Benzaldehyde, reactions 104-55-2 104-88-1,
p-Chlorobenzaldehyde, reactions 121-33-5 123-08-0,
p-Hydroxybenzaldehyde 123-11-5, p-Methoxybenzaldehyde, reactions
135-02-4, o-Methoxybenzaldehyde 139-85-5, 3,4-
Dihydroxybenzaldehyde 552-89-6, o-Nitrobenzaldehyde 556-18-3,
4-Aminobenzaldehyde 591-31-1, m-Methoxybenzaldehyde 708-06-5,
2-Hydroxybenzaldehyde 874-42-0, 2,4-Dichlorobenzaldehyde
1709-44-0, 3-Aminobenzaldehyde 6287-38-3, 3,4-
Dichlorobenzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydrazinosulfonylcinnamic acid)

L107 ANSWER 11 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 121:83144 CASREACT Full-text
TITLE: Studies on spiroheterocycles: Synthesis of new spiro-4-thiazolidinones as possible biodynamics
AUTHOR(S): Upadhyay, P.S.; Joshi, H.D.; Baxi, A.J.
CORPORATE SOURCE: Dep. Chem., Saurashtra Univ., Rajkot, 360 005, India
SOURCE: Journal of Sciences, Islamic Republic of Iran (1992), 3(1-2), 30-3

CODEN: JSIIEN; ISSN: 1016-1104
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Spiro-4-thiazolidinones I (R = H, Me, CH2CO2H, n = 1,2,3,4) have been synthesized by the cyclocondensation of phthalazinyl hydrazones with cyclic ketones and substituted mercaptoacetic acids, HSCHRCO2H. Compds. were screened for their antibacterial, antifungal and antihypertensive activity. The combined elemental analyses and spectroscopic data prove the authenticity of the synthesized compds.

RX(5) OF 8 ...F + 2 L ===> M

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *



* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

RX(5) RCT F 156213-51-3, L 70-49-5
RGT I 7646-85-7 ZnCl2
PRO M 156213-63-7
NTE thermal

CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))

ST cyclocondensation phthalazinyl hydrazone ketone mercaptoacetic acid; spirothiazolidinone prepn antibacterial antifungal antihypertensive activity; spiroheterocycle prepn biodynamic activity

IT Cyclocondensation reaction
(of mercaptoacetic acid derivs. with bis(cycloalkylidenehydrazino)phthalazines)

IT Antihypertensives
Bactericides, Disinfectants, and Antiseptics
Fungicides and Fungistats
(phthalazinyldiaminobis(spirothiazolidinones))

IT 108-94-1, Cyclohexanone, reactions 120-92-3, Cyclopentanone 502-42-1, Cycloheptanone 502-49-8, Cyclooctanone
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with bis(hydrazino)phthalazine)

IT 484-23-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with cyclic ketones)

IT 68-11-1, Thioglycolic acid, reactions 70-49-5, Thiomalic acid 79-42-5, Thiolactic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with bis(cycloalkylidenehydrazino)phthalazines)

IT 156213-57-9P 156213-58-0P 156213-59-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antihypertensive activity of)

IT 156213-53-5P 156213-55-7P 156213-60-4P 156213-61-5P 156213-62-6P 156213-63-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antimicrobial activity of)

IT 156213-49-9P 156213-50-2P 156213-51-3P 156213-52-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclocondensation of, with mercaptoacetic acid derivs.)

IT 156213-54-6P 156213-56-8P 156213-64-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as biodynamic agent)

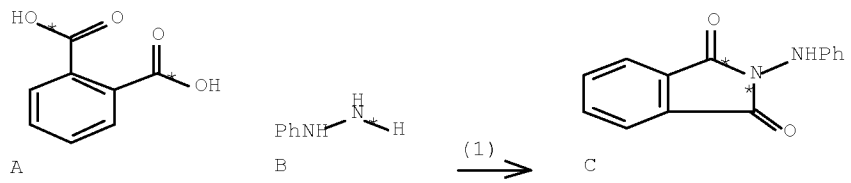
L107 ANSWER 12 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 112:207807 CASREACT Full-text
TITLE: N-aminophthalimide derivative-containing high-contrast dot-enhancing composition
INVENTOR(S): Kojima, Yasuhiko; Pilot, John; Waxman, Burton H.
PATENT ASSIGNEE(S): Polychrome Corp., USA; Dainippon Ink Chemical Industry Co.
SOURCE: U.S., 13 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4882261	A	19891121	US 1988-211980	19880627
JP 02052333	A	19900221	JP 1989-131228	19890524
AU 8936127	A	19900104	AU 1989-36127	19890607
AU 620101	B2	19920213		
EP 349274	A2	19900103	EP 1989-306523	19890627
EP 349274	A3	19900321		
EP 349274	B1	19940914		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
ES 2058532	T3	19941101	ES 1989-306523	19890627
CA 1335241	C	19950418	CA 1989-604005	19890627

PRIORITY APPLN. INFO.: US 1988-211980 19880627
OTHER SOURCE(S): MARPAT 112:207807

AB A dot-enhancing composition for use in a high-contrast neg.-working image-forming system contains a compound of the structure I (R1 = an aromatic group; Z = a substituted or unsubstituted aromatic nucleus, the 2 carbonyl groups are each bound to a different C atom of the aromatic nucleus). The composition, which may be incorporated into a lith Ag halide photog. emulsion, another hydrophilic colloid layer, a developer solution, or both, improves the d. and contrast of the images formed as well as provides harder, smoother, better formed dots for use in letterpress and offset lithog. plates.

RX(1) OF 1 A + B ===> C



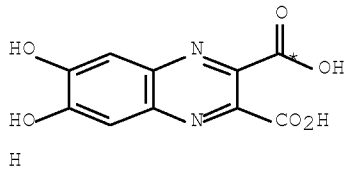
RX(1) RCT A 88-99-3, B 100-63-0
       RGT D 7646-85-7 ZnCl2
       PRO C 4870-16-0
IC ICM G03C001-06
NCL 430264000
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST aminophthalimide dot enhancer photog material; lith photog material dot enhancer; phthalimide amino dot enhancer lith material
IT Photographic films
      (high-contrast, dot-enhancing compns. containing aminophthalamide derivs. for)
IT 4870-16-0 4870-23-9 107940-72-7 126987-79-9
    RL: USES (Uses)
      (lith films containing, as dot-enhancing agent)
IT 126987-80-2P
    RL: PREP (Preparation)
      (preparation of, as dot-enhancing agent for lith film)
IT 88-99-3, 1,2-Benzenedicarboxylic acid, reactions 19438-61-0
    RL: RCT (Reactant); RACT (Reactant or reagent)
      (reaction of, with phenylhydrazine)
IT 100-63-0, Phenyl hydrazine
    RL: RCT (Reactant); RACT (Reactant or reagent)
      (reaction of, with phthalic acid derivs.)

L107 ANSWER 13 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 113:40326 CASREACT Full-text
TITLE: Heteroaroylhydrazide derivatives of monocyclic β-lactam antibiotics
INVENTOR(S): Sundeen, Joseph Edward; Ermann, Peter Hans
PATENT ASSIGNEE(S): E. R. Squibb and Sons, Inc., USA
SOURCE: Eur. Pat. Appl., 29 pp.
         CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

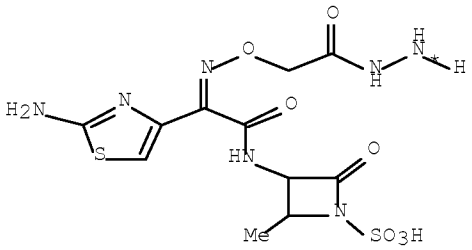
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 342423	A2	19891123	EP 1989-107843	19890429
EP 342423	A3	19910417		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4904775	A	19900227	US 1988-194355	19880516
ZA 8903483	A	19900131	ZA 1989-3483	19890510
DK 8902348	A	19891117	DK 1989-2348	19890512
AU 8934847	A	19891116	AU 1989-34847	19890516
AU 618598	B2	19920102		
JP 02017189	A	19900122	JP 1989-122705	19890516
US 5037983	A	19910806	US 1989-444237	19891201
AU 9185768	A	19911205	AU 1991-85768	19911011
AU 640531	B2	19930826		

PRIORITY APPLN. INFO.: US 1988-194355 19880516
OTHER SOURCE(S): MARPAT 113:40326
AB The title compds. (I; R1, R2 = H, alkyl, alkenyl, alkynyl, cycloalkyl, etc.; R3, R4 = H, alkyl, R3R4 = alkylene; R5, R6 = H, alkyl; or R5R6 = C2-5 alkylene; R7 = H, F, Cl, Br; X, Y = N, CH), useful as bactericides against gram-pos. and gram-neg. organisms, are prepared A solution of 485 mg anhydride II in DMF was treated with a solution of 1.42 g hydrazide III (preparation given) in DMF at 25° and enough Et3N to raise pH to 7.5 to give 3.05 mg (2S,2'α,3'β)-(Z)-I (R1 = R3 = R4 = Me, R2 = R5 = R6 = R7 = H, X = N, Y = CH), and 135 mg isomer I (X = CH, Y = N). Also prepared were 7 addnl. I. I are effective in combating bacterial infection in mammals at 14-100 mg/kg-day.

RX(6) OF 51 ...H + I ===> J

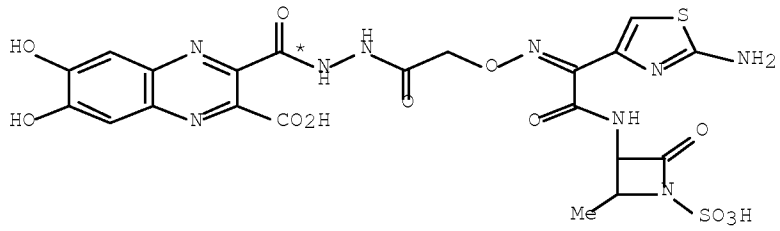


H



I

(6)



J

RX(6) RCT H 122234-55-3, I 127799-49-9
PRO J 127799-45-5
IC ICM C07D417-14
ICS A61K031-425; C07D241-44
ICA C07D417-12
CC 26-5 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1
ST heteroaroylhydrazide beta lactam prepn antibiotic
IT Bactericides, Disinfectants, and Antiseptics
(medical, heteroaroylhydrazides of monocyclic β-lactams)
IT 14005-14-2P 21075-83-2P 37519-03-2P 54186-68-4P
54186-71-9P 80951-91-3P 81864-32-6P 120372-90-9P
120372-91-0P 122234-55-3P 127799-46-6P 127799-48-8P
127799-50-2P 127799-51-3P 127799-52-4P 127799-53-5P
127799-54-6P 127799-55-7P 127799-56-8P 127799-57-9P
127799-58-0P 127799-59-1P 127910-05-8P 127910-06-9P
127910-07-0P 127910-09-2P 127910-11-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of bactericides)
IT 127694-71-7P 127694-72-8P 127694-73-9P 127799-42-2P
127799-43-3P 127799-44-4P 127799-45-5P 127910-03-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as bactericide)

IT 92525-76-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of bactericides)

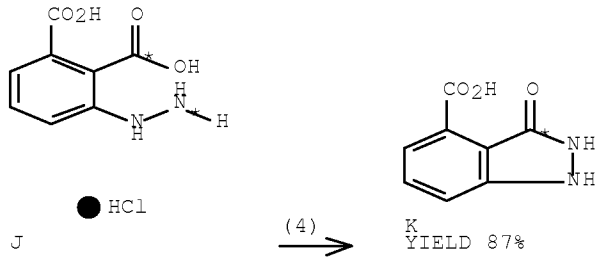
IT 120372-84-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylpropionic acid derivative, in preparation of bactericides)

IT 104334-19-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with quinolinedicarboxylic anhydride, in preparation of bactericides)

L107 ANSWER 14 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 114:62032 CASREACT Full-text
TITLE: Cyclization reactions of hydrazones. XXII. Synthesis and ring closure of some hydrazones derived from luminol
AUTHOR(S): Slouka, Jan
CORPORATE SOURCE: Anal. Org. Chem. Inst., Palacky Univ., Olomouc, 771 46, Czech.
SOURCE: Acta Universitatis Palackianae Olomucensis, Facultas Rerum Naturalium (1989), 94(Chemica 28), 175-81
CODEN: AUONAD; ISSN: 0472-9005
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Diazotiazotion of luminol and then treatment with NCCH2R (R = CONHCO2Et, CONH2, cyano) gave hydrazone I, which hydrolyzed in refluxing aqueous HCl to give 3-H2NNHC6H3(CO2H)2-1,2.HCl. Heating the latter compound in dilute HCl gave dihydroindazolecarboxylic acid II. Heating I (R = CONHCO2Et) with Na2CO3 in H2O gave dioxophthalazinylazauracil III.

RX(4) OF 9 J ===> K



RX(4) RCT J 131528-19-3
RGT D 7647-01-0 HCl
PRO K 7384-17-0

CC 28-15 (Heterocyclic Compounds (More Than One Hetero Atom))

ST luminol hydrazone prepn cyclization; phthalazinedione cyanoethoxycarbonylcarbamoylmethylenehydrazino prepn intramol cyclocondensation; hydrazinobenzenedicarboxylic acid prepn intramol cyclocondensation; indazolecarboxylic acid oxodihydro; phthalazinylazauracil carbonitrile dioxotetrahydro

IT Cyclocondensation reaction
(intramol., of hydrazinobenzenedicarboxylic acid and

cyano(ethoxycarbonylcarbamoyl)methylene
hydrazinotetrahydrophthalazinone)

IT 521-31-3DP, Luminol, hydrazone derivs.
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclization of)

IT 131527-63-4P 131527-64-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

IT 131528-19-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and intramol. cyclocondensation of)

IT 131527-65-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and sulfurization of)

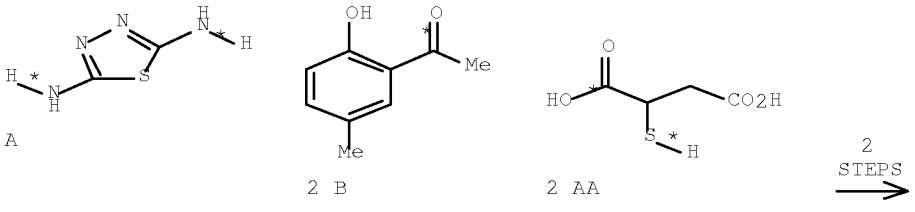
IT 7384-17-0P 131527-66-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

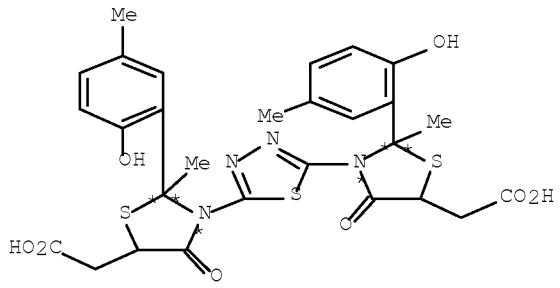
IT 131528-18-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, hydrolysis and mol. cyclocondensation of)

L107 ANSWER 15 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 112:55724 CASREACT Full-text
TITLE: Preparation and comparative studies of some substituted 4-thiazolidinones and 2-azetidinones linked to 1,3,4-thiadiazole
AUTHOR(S): Changani, V. S.; Kalavadia, A. V.; Manvar, U. V.; Joshi, G. K.
CORPORATE SOURCE: Dep. Chem., Saurashtra Univ., Rajkot, 360 005, India
SOURCE: Journal of the Indian Chemical Society (1989), 66(1), 63-4
CODEN: JICSAH; ISSN: 0019-4522
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Bis(benzylideneamino)thiadiazoles I (R = Me, Ph; R1 = H, NO2, Br) cyclize with HSCHR2CO2H (R2 = H, Me, CH2CO2H) to give 45-65% bis(aryloxothiazolidinyl)thiadiazoles II. Cyclization of I with ClCH2COCl gives 55-62% bis(chlorooxoazetidinyl)thiadiazoles III. I-III were tested for bactericidal activity.

RX(33) OF 54 COMPOSED OF RX(1), RX(16)
RX(33) A + 2 B + 2 AA ===> AB





AB
YIELD 45%

RX(1) RCT A 2937-81-7, B 1450-72-2
PRO C 124983-66-0
SOL 64-17-5 EtOH

RX(16) RCT C 124983-66-0, AA 70-49-5
RGT AC 7646-85-7 ZnCl2
PRO AB 124983-84-2
SOL 71-43-2 Benzene

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 10

ST bactericide azetidinylthiadiazole thiazolidinylthiadiazole benzylideneaminothiadiazole; thiadiazole bisbenzylideneamine cyclocondensation chloroacetyl chloride; mercapto acid cyclocondensation Schiff base

IT Bactericides, Disinfectants, and Antiseptics
(bis(aryloxoazetidinyl)thiadiazoles, bis(aryloxothiazolidinyl)thiadiazoles, and bis(benzylideneamino)thiadiazoles)

IT Schiff bases
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, bactericidal activity, and cyclocondensation reactions of)

IT 1450-72-2 1470-57-1, 2-Hydroxy-5-methylbenzophenone 4072-26-8 6723-09-7 56609-15-5 66108-30-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of, with diaminothiadiazole)

IT 2937-81-7, 2,5-Diamino-1,3,4-thiadiazole
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of, with hydroxymethylacetophenone and -benzophenone derivs.)

IT 68-11-1, Mercaptoacetic acid, reactions 70-49-5, Thiomalic acid 79-42-5, Thiolactic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with bis(benzylideneamino)thiadiazoles)

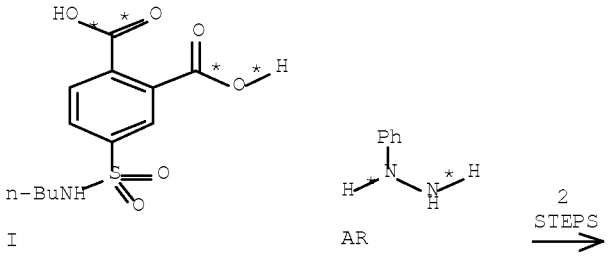
IT 124983-72-8P 124983-73-9P 124983-74-0P 124983-75-1P 124983-76-2P 124983-77-3P 124983-78-4P 124983-79-5P 124983-80-8P 124983-81-9P 124983-82-0P 124983-83-1P 124983-84-2P 124983-85-3P 124983-86-4P 124983-87-5P 124983-88-6P 124983-89-7P 124983-90-0P 124983-91-1P 124983-92-2P 124983-93-3P 124983-94-4P 124983-95-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and bactericidal activity of)

IT 79-04-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

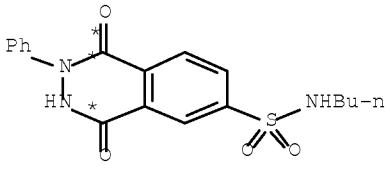
IT 124983-66-0P 124983-67-1P 124983-68-2P 124983-69-3P
124983-70-6P 124983-71-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, bactericidal activity, and cyclocondensation reactions of)

L107 ANSWER 16 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 112:35783 CASREACT Full-text
TITLE: Studies on phthalazines. Part I Preparation and antimicrobial activity of 1-hydroxy/chloro-3-H/phenyl-4-keto-3,4-dihydro-7-[(N-aryl/alkylamino)sulfonyl]phthalazines
AUTHOR(S): Dabhi, T. P.; Parikh, A. R.
CORPORATE SOURCE: Chem. Dep., Saurashtra Univ., Rajkot, 360005, India
SOURCE: Journal of the Institution of Chemists (India) (1988), 60(6), 214-16
CODEN: JOICA7; ISSN: 0020-3254
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Amidation of 3,4-(HO2C)2C6H3SO2Cl followed by conversion to the anhydride and ring-opening-ring closure with RNHNH2 (R = H, Ph) gave (aminosulfonyl)dihydrophthalazinones I (same R; R1 = Bu, cyclohexyl, CH2Ph, C6H4NO2-o, -m, and -p, C6H4CO2H-o and -p, C6H4CO2Et-p, 1-naphthyl; R2 = OH). I (R = Ph; R2 = OH) were chlorinated to give I (R = Ph; R2 = Cl). All the compds. prepared were tested for bactericidal activity.

RX(61) OF 124 COMPOSED OF RX(11), RX(31)
RX(61) I + AR ===> AS



I AR



AS
YIELD 49%

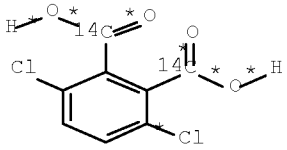
RX(11) RCT I 124642-22-4
PRO V 124642-28-0
CAT 108-24-7 Ac2O

RX(31) RCT V 124642-28-0, AR 100-63-0
PRO AS 124641-73-2
CC 28-15 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 10
ST bactericide aminosulfonyldihydrophthalazinone; phthalazinone aminosulfonyl dihydro antibacterial; chloroaminosulfonyldihydropht halazinone bactericide; hydroxyaminosulfonyldihydrophthalazinone bactericide
IT Bactericides, Disinfectants, and Antiseptics
((aminosulfonyl)oxodihydrophthalazines)
IT 54229-55-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation of, with amines)
IT 88-74-4, o-Nitroaniline 94-09-7, Ethyl p-aminobenzoate 99-09-2, m-Nitroaniline 100-01-6, p-Nitroaniline, reactions 100-46-9, Benzylamine, reactions 108-91-8, Cyclohexylamine, reactions 109-73-9, Butylamine, reactions 118-92-3, o-Aminobenzoic acid 134-32-7, 1-Aminonaphthalene 150-13-0, p-Aminobenzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation with, of (chlorosulfonyl)phthalic acid)
IT 124641-67-4P 124641-68-5P 124641-69-6P 124641-70-9P 124641-71-0P 124641-72-1P 124641-83-4P 124641-84-5P 124641-85-6P 124641-86-7P 124641-87-8P 124641-88-9P 124641-89-0P 124641-90-3P 124641-91-4P 124641-92-5P 124641-93-6P 124642-37-1P 124642-38-2P 124642-39-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and bactericidal activity of)
IT 124642-20-2P 124642-28-0P 124642-29-1P 124642-30-4P 124642-31-5P 124642-32-6P 124642-33-7P 124642-34-8P 124642-35-9P 124642-36-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and ring opening-ring closure of, with hydrazine and phenylhydrazine)
IT 124641-73-2P 124641-74-3P 124641-75-4P 124641-76-5P 124641-77-6P 124641-78-7P 124641-79-8P 124641-80-1P 124641-81-2P 124641-82-3P 124642-21-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, bactericidal activity, and chlorination of)
IT 104941-68-6P 104941-69-7P 104941-70-0P 124642-19-9P 124642-22-4P 124642-23-5P 124642-24-6P 124642-25-7P 124642-26-8P 124642-27-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, bactericidal activity, and conversion of, to anhydride)
IT 100-63-0, Phenylhydrazine 302-01-2, Hydrazine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (aminosulfonyl)phthalic anhydride derivs., phthalazine derivs. from)

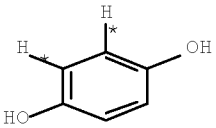
L107 ANSWER 17 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 109:6455 CASREACT Full-text
TITLE: Synthesis of double carbon-14 labeled CI-937 and CI-942, potential new anticancer drugs
AUTHOR(S): Hicks, James L.; Huang, C. C.; Showalter, H. D. Hollis
CORPORATE SOURCE: Chem. Dep., Warner-Lambert/Parke-Davis Pharm. Res., Ann Arbor, MI, 48105, USA
SOURCE: Journal of Labelled Compounds and Radiopharmaceuticals (1987), 24(10), 1209-20
CODEN: JLCRD4; ISSN: 0362-4803
DOCUMENT TYPE: Journal
LANGUAGE: English

AB CI-937 and CI-942, compds. which show potent anticancer activity, were prepared with 2 high specific activity carbon-14 labels. The key intermediate in the synthesis, 3,6-dichlorophthalic anhydride labeled with 14C at the 2 CO groups, was made by treating 2,5-Cl2C6H3Br with BuLi and 14CO2 to give 2,5-Cl2C6H314CO2H, which was converted to its diethylamide. Ortho-directed lithiation followed by a 2nd carboxylation, hydrolysis, and dehydration generated the anhydride. Friedel-Crafts acylation of the anhydride with p-HOC6H4OH gave 1,4-dichloro-5,8-dihydroxy-9,10- anthracenedione labeled at the CO groups. Protection and hydrazination gave a chloroanthrapyrazole intermediate which was converted into [14C2]CI-937 I (R = NHMe) or [14C2]CI-942 I (R = CH2NH2) in 2 steps. The specific activities of the final compds. were 196 μCi/mg and 182 μCi/mg resp.

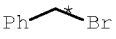
RX(44) OF 106 COMPOSED OF RX(6), RX(7), RX(9), RX(8)
RX(44) T + W + 2 AG + AA ===> AB



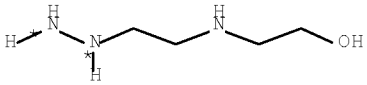
T



W

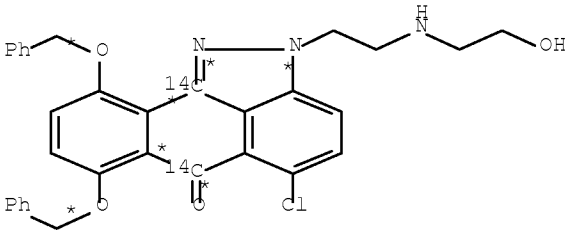


2 AG



AA

4
STEPS



AB
YIELD 58%

RX(6) RCT T 108055-37-4
RGT V 1314-56-3 P2O5
PRO P 108071-89-2

RX(7) RCT P 108071-89-2, W 123-31-9
RGT Y 7446-70-0 AlCl3, Z 7647-14-5 NaCl
PRO X 108055-38-5
NTE thermal

RX(9) RCT X 108055-38-5, AG 100-39-0

RGT AH 534-17-8 Cs2CO3
PRO Q 108055-39-6
SOL 67-64-1 Me2CO

RX(8) RCT AA 88303-65-5, Q 108055-39-6
RGT AC 7789-23-3 KF, AD 7087-68-5 EtN(Pr-i)2
PRO AB 108071-90-5
SOL 127-19-5 AcNMe2, 109-99-9 THF
CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))
ST CI 937 carbon 14; CI 942 carbon 14; anthrapyrazolone labeled
IT 123-31-9, 1,4-Benzenediol, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(Friedel-Crafts reaction of, with labeled dichlorophthalic anhydride)
IT 109-76-2, 1,3-Propanediamine 14165-18-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(amination with, of labeled anthrapyrazolone)
IT 1435-50-3, 2-Bromo-1,4-dichlorobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(carboxylation of, with labeled carbon dioxide)
IT 88303-65-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with labeled anthracenedione derivative)
IT 108071-89-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and Friedel-Crafts reaction of, with hydroquinone)
IT 108055-34-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amidation of)
IT 108071-90-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amination of)
IT 108055-38-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and benzylation of)
IT 108055-35-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and carboxylation of, with labeled carbon dioxide, regiochem. of)
IT 108071-91-6P 114724-29-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and catalytic hydrogenation of)
IT 108055-39-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and cyclocondensation reaction of,with [(hydrazinoethyl)amino]ethanol, labeled anthrapyrazolone derivative from)
IT 108055-37-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and dehydration of, anhydride from)
IT 108055-36-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
IT 1314-56-3P, preparation 114700-98-0P 114700-99-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

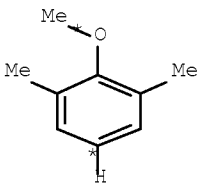
ACCESSION NUMBER: 105:114902 CASREACT Full-text
TITLE: 2-(3,5-Dialkyl-4-hydroxyphenyl)indole derivatives
INVENTOR(S): Suzuki, Yasushi; Hasegawa, Yukio; Sato, Michitaka Copo Izumi; Saito, Morinobu; Yamamoto, Norio; Miyasaka, Katsuhiko; Mikami, Takashi; Miyazawa, Katsuhiko
PATENT ASSIGNEE(S): Teikoku Hormone Mfg. Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 51 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 173279	A1	19860305	EP 1985-110682	19850826
EP 173279	B1	19890823		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 61060648	A	19860328	JP 1984-180656	19840831
JP 04066232	B	19921022		
AT 45730	T	19890915	AT 1985-110682	19850826
CA 1247626	A1	19881227	CA 1985-489487	19850827
AU 8546829	A	19860306	AU 1985-46829	19850828
AU 575197	B2	19880721		
US 4695581	A	19870922	US 1985-770773	19850829
IN 162048	A1	19880319	IN 1985-MA677	19850829
ES 546602	A1	19861116	ES 1985-546602	19850830
US 4910216	A	19900320	US 1988-160281	19880225
CA 1306464	C	19920818	CA 1988-560202	19880301
PRIORITY APPLN. INFO.:			JP 1984-180656	19840831
			EP 1985-110682	19850826

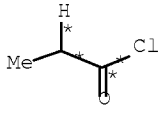
OTHER SOURCE(S): MARPAT 105:114902

AB The title compds. [I; R1-R3 = alkyl; R4-R6 = H, halo, alkyl, alkoxy, alkanoyloxy, aralkyloxy, alkylthio, haloalkyl, OH, cyano, NO2, NH2, mono- or di-(alkyl or aralkyl)amino, N(R9)ZNR7R8, OZNR7R8; R4R5, R5R6 = alkylenedioxy; R7-R9 = H, alkyl; Z = alkylene] and their salts, useful as inhibitors of 5-lipoxygenase, are prepared Thus, I (R1 = R2 = R3 = Me, R4 = R5 = H, R6 = 5-OMe) (II) was prepared by reacting 2,6-dimethyl-4-propionylphenol and 4-methoxyphenylhydrazine-HCl, followed by cyclization. II at 10 mg/kg orally to rats inhibited A23187-induced formation of SRS-A-like active substance by 66.2%, demonstrating that II inhibits the lipoxygenase activity for polyunsatd. fatty acids. In a toxicity test, no deaths occurred within 2 wk after II was administered to rats at 5 mg/kg, orally. A capsule was formulated containing I 50, starch 30, lactose 27.8, and Mg stearate 2.2 mg.

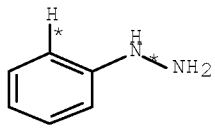
RX(16) OF 16 COMPOSED OF RX(1), RX(2), RX(3), RX(9)
RX(16) A + B + E + S ===> T



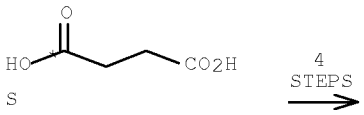
A

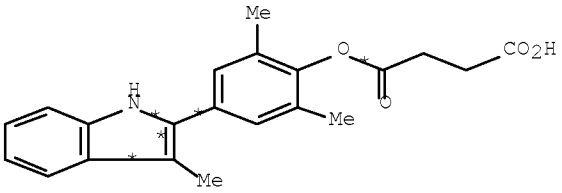


B



E





T

RX(1) RCT A 1004-66-6, B 79-03-8
RGT D 7446-70-0 AlCl3
PRO C 5384-11-2

RX(2) RCT C 5384-11-2, E 100-63-0
RGT G 7647-01-0 HCl
PRO F 104008-34-6

RX(3) RCT F 104008-34-6
PRO H 104008-07-3

RX(9) RCT S 110-15-6, H 104008-07-3
RGT U 7646-69-7 NaH
PRO T 109139-67-5
SOL 68-12-2 DMF

IC ICM C07D209-12
ICS C07D491-056; A61K031-40

CC 27-11 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 63

ST indole dialkylhydroxyphenyl prepn lipoxygenase inhibitor; lipoxygenase inhibitor dialkylhydroxyphenylindole prepn; pharmaceutical dialkylhydroxyphenylindole lipoxygenase inhibitor

IT 142-61-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(Friedel-Crafts reaction of, with dimethylanisole)

IT 1004-66-6 2944-51-6 52489-57-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(Friedel-Crafts reaction of, with propionyl chloride)

IT 1069-72-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation by, of hydroxyindole)

IT 19501-58-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with (dimethyl)propionylphenol)

IT 5384-09-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with methoxyphenylhydrazine)

IT 637-60-5 40119-17-3 104033-62-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with propiophenone derivative)

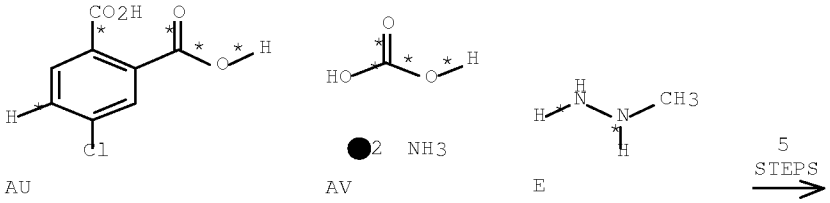
IT 104008-39-1
RL: RCT (Reactant); RACT (Reactant or reagent)

(cyclization of, to indole derivative)
IT 4469-80-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with (bromooxopropyl)phenol)
IT 59-88-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with (butyryl)diethylphenol)
IT 100-63-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with acylanisoles)
IT 104008-42-6 104008-46-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with methoxyphenylhydrazine)
IT 104008-40-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with propoxyaniline)
IT 80619-02-9
RL: USES (Uses)
(inhibitors, (dialkylhydroxyphenyl)indole derivs. as)
IT 104033-60-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and catalytic reduction of)
IT 104008-37-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of, to (benzylamino)(hydroxydimethylphen
yl)methylindole)
IT 104008-36-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of, to (diethylaminoethylamino)(hydroxyd
imethylphenyl)methylindole)
IT 104008-38-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of, to (hydroxydimethylphenyl)(methyl)me
thylaminoindole)
IT 104008-53-9P 104008-54-0P 104008-55-1P 104008-56-2P
104008-57-3P 104024-16-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and cyclization of, to indole derivative)
IT 5384-11-2P 104008-43-7P 104008-48-2P 104008-49-3P
104008-51-7P 104024-15-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and cyclocondensation reaction of, with
phenylhydrazine)
IT 104008-34-6P 104008-41-5P 104008-44-8P 104008-45-9P
104008-47-1P 104008-50-6P 104008-52-8P 104033-61-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and demethylation of)
IT 104008-35-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and N-alkylation of, with diethylaminoethyl chloride)
IT 104007-80-9P 104007-81-0P 104007-82-1P 104007-83-2P
104007-84-3P 104007-85-4P 104007-86-5P 104007-87-6P
104007-88-7P 104007-89-8P 104007-90-1P 104007-91-2P
104007-92-3P 104007-93-4P 104007-94-5P 104007-95-6P
104007-96-7P 104007-97-8P 104007-98-9P 104007-99-0P
104008-00-6P 104008-01-7P 104008-02-8P 104008-03-9P
104008-04-0P 104008-05-1P 104008-06-2P 104008-07-3P
104008-08-4P 104008-09-5P 104008-10-8P 104008-11-9P
104008-12-0P 104008-13-1P 104008-14-2P 104008-15-3P
104008-16-4P 104008-17-5P 104008-18-6P 104008-19-7P
104008-20-0P 104008-21-1P 104008-22-2P 104008-23-3P
104008-24-4P 104008-25-5P 104008-26-6P 104008-27-7P

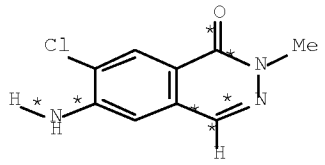
104008-28-8P 104008-29-9P 104008-30-2P 104008-31-3P
104008-32-4P 104008-33-5P 104033-59-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as lipoxygenase inhibitor)
IT 40643-14-9DP, derivs.
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as lipoxygenase inhibitors)
IT 100-35-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(N-alkylation by, of tosylaminoindole derivative)

L107 ANSWER 19 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 104:207223 CASREACT Full-text
TITLE: Synthesis, saludiuretic, and antihypertensive activity of 6,7-disubstituted 1(2H)- and 3,4-dihydro-1(2H)-phthalazinones
AUTHOR(S): Cherkez, S.; Herzig, J.; Yellin, H.
CORPORATE SOURCE: Teva Pharm. Ind. Ltd., Tel-Aviv, 61 013, Israel
SOURCE: Journal of Medicinal Chemistry (1986), 29(6), 947-59
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 6-Chloro-7-sulfamoyl-1(2H)-phthalazinones I (R = H, Me, PhCH2, m-CF3C6H4, furfuryl), four 7-chloro-6-sulfamoyl isomers (II), and their 3,4-dihydro derivs., combining structural features characteristic to furosemide and hydralazine, were prepared and their structure-activities relationships were studied. Preliminary screening in the rat shows that series I and dihydro derivs. exhibit diuretic and saluretic activity similar to that of chlorothiazide with, however, Na+/K+ ratios more favorable than chlorothiazide and furosemide. The compds. of series II and dihydro derivs. are practically inactive. All four series show initial antihypertensive activity lower than that of hydralazine. However, I (R = H, PhCH2) and II (R = H) dihydro derivative show a higher activity at 8 and/or 24 h after administration and thus may offer a unique combination of a "loop" diuresis with direct long-acting peripheral vasodilating effects.

RX(150) OF 215 COMPOSED OF RX(23), RX(25), RX(26), RX(27), RX(29)
RX(150) AU + AV + E ===> BH



AU AV E



BH

RX(23) RCT AU 89-20-3, AV 506-87-6
PRO AW 7147-90-2

RX(25) RCT AW 7147-90-2
RGT BA 7697-37-2 HNO3
PRO AZ 6015-57-2
SOL 7664-93-9 H2SO4, 7732-18-5 Water

RX(26) RCT AZ 6015-57-2
RGT BD 7772-99-8 SnCl2, M 7647-01-0 HCl
PRO BC 5566-48-3

RX(27) RCT BC 5566-48-3
RGT AR 7440-66-6 Zn, BF 18939-61-2 Sulfuric acid, copper(2+) salt (1:?), G 1310-73-2 NaOH
PRO BE 100448-46-2
SOL 7732-18-5 Water

RX(29) RCT BE 100448-46-2, E 60-34-4
PRO BH 100448-48-4
SOL 7732-18-5 Water

CC 28-15 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

ST phthalazinone prepn saluretic antihypertensive; diuretic phthalazinone

IT Antihypertensives
Diuretics
(phthalazinones)

IT Molecular structure-biological activity relationship
(antihypertensive, of phthalazinones)

IT Molecular structure-biological activity relationship
(diuretic, of phthalazinones)

IT Molecular structure-biological activity relationship
(salidiuretic, of phthalazinones)

IT 7499-07-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(bromination of)

IT 60-34-4 302-01-2, reactions 368-78-5 555-96-4 6885-12-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with phthalimidine derivative)

IT 89-20-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with ammonium carbonate)

IT 50-84-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with cuprous cyanide)

IT 100448-47-3P 100448-48-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and chlorosulfonylation of)

IT 100448-46-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and condensation with hydrazines)

IT 100448-58-6P 100448-59-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclization of)

IT 100448-29-1P 100448-30-4P 100448-35-9P 100448-38-2P
100448-39-3P 100448-42-8P 100448-43-9P 100448-44-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and diuretic and saluretic activities of)

IT 100448-25-7P 100448-26-8P 100448-27-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and diuretic and saluretic and antihypertensive activities of)

IT 7147-90-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and nitration of)

IT 100448-55-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with DMS acetal)

IT 3861-99-2P 5566-48-3P 6015-57-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)

IT 100448-45-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and reduction or condensation with hydrazines)

IT 54109-03-4P 100448-49-5P 100448-50-8P 100448-51-9P
100448-52-0P 100448-53-1P 100448-54-2P 100448-56-4P
100448-57-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 100448-36-0P 100448-37-1P 100448-40-6P 100448-41-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, antihypertensive, diuretic and saluretic activities of)

IT 100448-33-7P 100448-34-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, antihypertensive, diuretic, and saluretic activities of)

IT 100448-32-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, reactions, diuretic and saluretic activities of)

IT 100448-28-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, reduction, antihypertensive, diuretic and saluretic activities of)

IT 100448-31-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, reduction, diuretic and saluretic activities of)

IT 544-92-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chlorobenaoic acid derivative)

IT 108-98-5, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chlorophthalazine derivative)

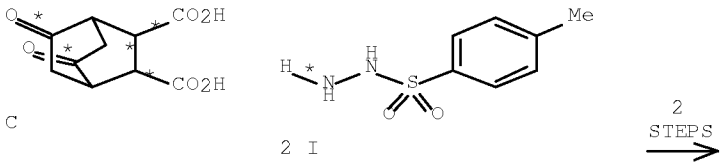
IT 4637-24-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chlorosulfamoylphthalimidine derivative)

IT 2736-23-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with copper cyanide)

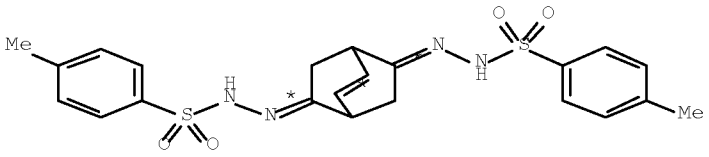
L107 ANSWER 20 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 104:5712 CASREACT Full-text
TITLE: Epoxidation of barrelene: preparation and properties of oxahomobarrelenes

AUTHOR(S): Weitemeyer, Christian; Preuss, Thomas; De Meijere, Armin
CORPORATE SOURCE: Inst. Org. Chem., Univ. Hamburg, Hamburg, D-2000/13, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1985), 118(10), 3993-4005
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Barrelene (I) was prepared on a 1-2 g scale (four-step synthesis) and epoxidized with KHCO3-buffered m-ClC6H4CO3H. In the presence of acid, I monoepoxide rearranged to cycloheptatrione-7- carboxaldehyde and I trisepoxide rearranged to 4,7,11-trioxatrishomocubane (II). Under basic and neutral conditions, I trisepoxide is stable toward virtually any nucleophile; its 3 epoxide rings can only be opened by solvated-electron reduction Oxahomobarrelenes III and IV are readily attacked at the oxirane rings by LiI/Na2HPO4.

RX(24) OF 91 COMPOSED OF RX(2), RX(3)
RX(24) C + 2 I ===> J



C 2 I



J

RX(2) RCT C 61543-84-8
RGT G 546-67-8 Pb(OAc)4
PRO F 17660-74-1
SOL 110-86-1 Pyridine

RX(3) RCT F 17660-74-1, I 1576-35-8
PRO J 61543-85-9
SOL 67-56-1 MeOH

CC 27-2 (Heterocyclic Compounds (One Hetero Atom))
ST oxahomobarrelene prepn ring opening; barrelene epoxide prepn cleavage
IT Epoxidation
(of barrelene)
IT Ring cleavage
(of oxahomobarrelenes)
IT 108-31-6, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cycloaddn. reaction of, with hydroquinone)

IT 123-31-9, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cycloaddn. reaction of, with maleic anhydride)
IT 17579-99-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(dehydration by, of bicyclooctenediol)
IT 500-23-2 7092-05-9 27335-51-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(epoxidn. of)
IT 937-63-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, with bicyclooctenediol)
IT 99396-13-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acidic hydrolysis of)
IT 61543-84-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and bisdecarboxylation of)
IT 99339-07-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and dehydrotosylation of)
IT 500-24-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and epoxidn. of)
IT 99396-12-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and iodoacetylation of)
IT 60239-29-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and pyrolysis of)
IT 61543-85-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with methyllithium)
IT 60239-28-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of)
IT 82652-05-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and rearrangement of)
IT 60239-31-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and reduction or Lewis acid-catalyzed rearrangement of)
IT 17660-74-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and reduction or tosylhydrazinolysis of)
IT 3725-23-3P 60239-30-7P 60239-32-9P 61586-14-9P 85317-03-9P
99339-09-0P 99339-10-3P 99339-11-4P 99339-12-5P
99396-11-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 1576-35-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bicyclooctenedione)

L107 ANSWER 21 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 104:5587 CASREACT Full-text
TITLE: Studies related to the synthesis of dimethyl tetracyclo[5.2.1.02,6.03,8]decane-7,8-

dicarboxylate

AUTHOR(S): Camps, Pelayo; Aliaga, Jose; Figueredo, Marta; Ortuno, Rosa Maria; De Gomez, Antonio Gil; Santos, Maria Teresa; Castane, Joan; Feliz, Miguel

CORPORATE SOURCE: Fac. Farm., Univ. Valencia, Valencia, Spain

SOURCE: Canadian Journal of Chemistry (1985), 63(11), 3233-41
CODEN: CJCHAG; ISSN: 0008-4042

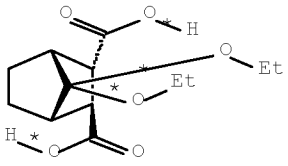
DOCUMENT TYPE: Journal

LANGUAGE: English

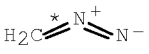
AB The title compound I was prepared via formation of the C1-C2 bond by regioselective intramol. C-H insertion of a carbene generated from tosylhydrazone II. Attempts to synthesize I or compds. containing its carbon skeleton, by forming the same C-C bond, starting from oxotricyclodecanedicarboxylate III, or the corresponding anhydride, IV, are also described.

RX(81) OF 109 COMPOSED OF RX(23), RX(24), RX(25), RX(26)

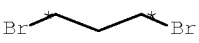
RX(81) AV + 2 F + AO + Y ===> BB



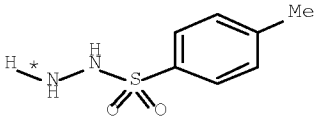
AV



2 F

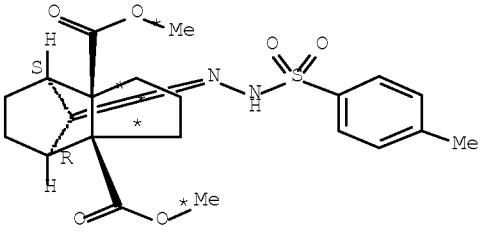


AO



Y

4 STEPS



BB

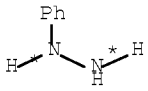
RX(23) RCT AV 99321-64-9, F 334-88-3
PRO AY 93248-40-9

```
          SOL  60-29-7 Et2O

RX(24)    RCT  AO 109-64-8, AY 93248-40-9
          RGT  AQ 4111-54-0 LiN(Pr-i)2
          PRO  AZ 93248-41-0
          SOL  109-99-9 THF

RX(25)    RCT  AZ 93248-41-0
          RGT  AU 7601-90-3 HClO4
          PRO  BA 93248-43-2
          SOL  7732-18-5 Water

RX(26)    RCT  BA 93248-43-2, Y 1576-35-8
          RGT  D 7647-01-0 HCl
          PRO  BB 93248-42-1
          SOL  67-63-0 Me2CHOH
CC   24-8 (Alicyclic Compounds)
ST   tetracyclodecanedicarboxylate; oxotricyclodecanedicarboxylate
     hydrazone carbene cyclization
IT   Cyclic compounds
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of tetracyclodecanedicarboxylate derivs.)
IT   109-64-8
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (cyclocondensation reactions of, with
        bicycloheptanedicarboxylic acid derivs.)
IT   99321-61-6
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (elimination reaction of)
IT   79681-23-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (hydrogenation and cyclization with dibromopropane)
IT   99321-60-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (photochem. elimination reaction of)
IT   93248-42-1P   100019-09-8P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (preparation and carbene intramol. insertion reaction of)
IT   93248-42-1P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and conversion into sodium salt)
IT   93248-43-2P   99321-54-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and conversion into tosyl hydrazone)
IT   93248-40-9P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (preparation and cyclization of, with dibromopropane)
IT   99321-52-5P   99321-57-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (preparation and cyclocondensation of)
IT   99321-58-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (preparation and elimination reaction of)
IT   99321-55-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and esterification and barium hydroxide catalyzed
        cyclization of)
IT   99321-49-0P   99321-51-4P   99321-64-9P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (preparation and esterification of)
IT   79681-24-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
```

(Preparation); RACT (Reactant or reagent)
(preparation and hydrogenation of)
IT 93248-38-5P 93248-41-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
IT 99321-53-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis-decarboxylation of)
IT 99321-50-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and oxidative ring cleavage of)
IT 93248-37-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and saponification and cyclization with dibromopropane)
IT 99321-56-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and saponification-esterification of)
IT 93248-36-3P 93248-39-6P 93303-49-2P 99321-59-2P
99321-62-7P 99321-63-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 99321-48-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(saponification of)

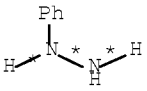
L107 ANSWER 22 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 105:42737 CASREACT Full-text
TITLE: Synthesis and inhibitory effect on platelet aggregation of 2-phenyl-1(2H)-phthalazinone derivatives
AUTHOR(S): Sugimoto, Akiko; Sakamoto, Keiko; Fujino, Yohko; Takashima, Yoshimi; Ishikawa, Masayuki
CORPORATE SOURCE: Inst. Med. Dent. Eng., Tokyo Med. Dent. Univ., Tokyo, 101, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1985), 33(7), 2809-20
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 2-Phenyl-1(2H)-phthalazinone derivs. I (R = 6-, 7-O2N, 6-, 7-CO2Et, 7-Cl, 7-Br, 7-MeO; R1 = H, F, Me, MeO) were prepared by reactions of the corresponding o-phthalaldehydic acids II with phenylhydrazine derivs. The preparation of II was carried out by decarboxylation of keto carboxylic acids or hydroxylation of phthalides via their bromo derivs. I showed no appreciable effect on platelet aggregation induced by ADP, although several compds. effectively inhibited platelet aggregation induced by arachidonic acid.

RX(274) OF 312 COMPOSED OF REACTION SEQUENCE RX(16), RX(47), RX(46)
AND REACTION SEQUENCE RX(34), RX(37), RX(52), RX(53),
RX(46)
...2 AE + 2 U + CR ===> CP...
...2 BN + 2 BI + 2 U + CP ===> CQ



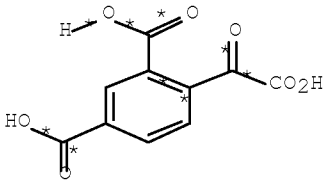
● HCl

U



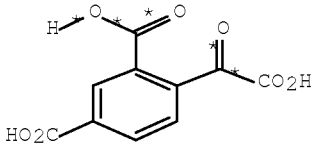
● HCl

U



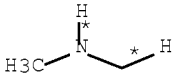
● 3 K

AE



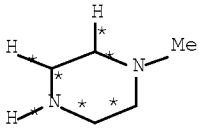
● 3 K

AE



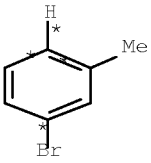
CR

5 STEPS

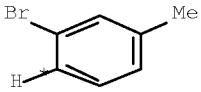


CP

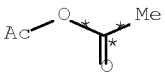
START NEXT REACTION SEQUENCE



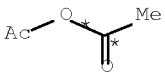
BN



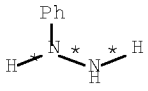
BN



BI

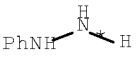


BI



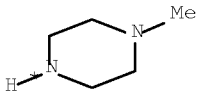
● HCl

U



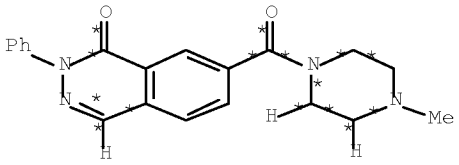
● HCl

U



CP

5 STEPS



CQ

RX(16) RCT AE 103286-09-5

STAGE(1)
RGT W 7647-01-0 HCl, AK 7631-90-5 NaHSO3
SOL 7732-18-5 Water

STAGE(2)
RCT U 59-88-1
SOL 7732-18-5 Water

PRO AJ 103286-11-9

RX(47) RCT AJ 103286-11-9

STAGE(1)
RGT AT 7719-09-7 SOCl2

STAGE(2)
RCT CR 124-40-3
SOL 75-09-2 CH2Cl2

PRO CP 109-01-3

RX(34) RCT BN 591-17-3, BI 108-24-7
RGT BL 7446-70-0 AlCl3
PRO BO 65095-33-2, BP 103286-27-7
SOL 75-15-0 CS2

RX(37) RCT BO 65095-33-2, BP 103286-27-7

STAGE(1)
RGT AF 7722-64-7 KMnO4, AG 584-08-7 K2CO3
SOL 7732-18-5 Water

STAGE(2)
RGT W 7647-01-0 HCl
SOL 7732-18-5 Water

STAGE(3)
RCT U 59-88-1
SOL 7732-18-5 Water

PRO BU 103286-29-9, BV 103286-32-4

RX(52) RCT BU 103286-29-9
RGT CZ 544-92-3 CuCN
PRO CY 103286-44-8
SOL 68-12-2 DMF

RX(53) RCT CY 103286-44-8
RGT DB 1310-73-2 NaOH
PRO AJ 103286-11-9
SOL 7732-18-5 Water, 64-17-5 EtOH

RX(46) RCT AJ 103286-11-9

STAGE(1)
RGT AT 7719-09-7 SOCl2

STAGE(2)
RCT CP 109-01-3
SOL 75-09-2 CH2Cl2

PRO CQ 103286-39-1

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

ST phthalazine phenyl prepn platelet inhibition; platelet aggregation inhibition phenylphthalazine

IT Blood platelet
(aggregation of, inhibition by phenylphthalazinone derivs.)

IT 100-84-5 108-41-8 591-17-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(Friedel-Crafts acetylation of)

IT 39830-63-2 39830-64-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of, with phenylhydrazine, nitrophenylphthalazinone from)

IT 119-67-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of, with phenylhydrazines, phthalazinone derivs. from)

IT 59-88-1 529-27-1 2368-80-1 18312-46-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of, with phthalaldehydic acid derivs., phthalazinone derivs. from)

IT 87-41-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(nitration of)

IT 89-74-7 2142-73-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of)

IT 610-93-5P 42760-46-3P 67081-02-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and bromination of)

IT 89891-73-6P 103286-03-9P 103286-04-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and cyclization with phenylhydrazine, phthalazinone derivative from)

IT 103286-09-5P 103286-10-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and cyclization with phenylhydrazine, phthalazinone derivs. from)

IT 103286-33-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenation of)

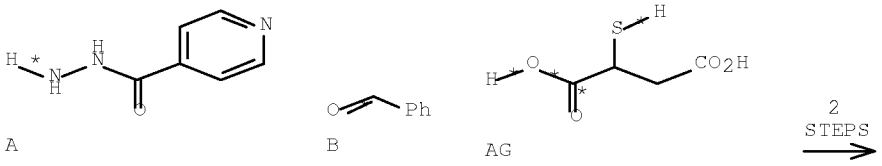
IT 6266-49-5P 103286-06-2P 103286-16-4P 103286-18-6P
103286-19-7P 103286-20-0P 103286-21-1P 103286-23-3P
103286-24-4P 103286-25-5P 103286-26-6P 103286-28-8P
103286-29-9P 103286-30-2P 103286-34-6P 103286-35-7P
103286-37-9P 103286-39-1P 103286-41-5P 103286-42-6P
103286-43-7P 103286-44-8P 103286-45-9P 103286-46-0P
103286-47-1P 103286-48-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and platelet aggregation inhibition activity of)

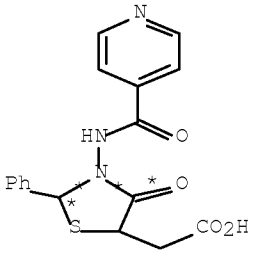
IT 90072-77-8P 101714-14-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with Et chloroformate, nitrophthalide from)

IT 103286-40-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with amines)
IT 103286-11-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of)
IT 61471-39-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and rearrangement of)
IT 22162-19-2P 24826-74-2P 65095-33-2P 90649-68-6P
103286-05-1P 103286-07-3P 103286-08-4P 103286-12-0P
103286-13-1P 103286-14-2P 103286-15-3P 103286-17-5P
103286-22-2P 103286-27-7P 103286-31-3P 103286-32-4P
103286-36-8P 103286-38-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 37074-38-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, oxidation, and cyclization with phenylhydrazine)
IT 37616-36-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (chloromethyl)phenylphthalazinone)
IT 6744-85-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Et chloroformate, nitrophthalide from)
IT 5466-84-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methanol)
IT 108-00-9 109-01-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phthalazinecarbonyl chloride derivative)

L107 ANSWER 23 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 105:78865 CASREACT Full-text
TITLE: Studies on isoniazid derivatives. Preparation and antimicrobial activity of 2-aryl-3-(pyridylcarbomyl)-5-carboxymethyl-4-thiazolidinones
AUTHOR(S): Shah, R. R.; Mehta, R. D.; Parikh, A. R.
CORPORATE SOURCE: Dep. Chem., Saurashtra Univ., Rajkot, 360 005, India
SOURCE: Journal of the Indian Chemical Society (1985), 62(3), 255-7
CODEN: JICSAH; ISSN: 0019-4522
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fifteen thiazolidinones I [R = (un)substituted Ph, PhCH:CH, 2-furyl] were prepared by cyclization of the isoniazids II with thiomalic acid. Min. inhibitory concns. were determined for I and II against three bacteria.

RX(31) OF 45 COMPOSED OF RX(1), RX(16)
RX(31) A + B + AG ===> AH





RX(1) RCT A 54-85-3, B 100-52-7
PRO C 533-02-8
SOL 67-56-1 MeOH

RX(16) RCT C 533-02-8, AG 70-49-5
RGT AI 7646-85-7 ZnCl2
PRO AH 24327-74-0

CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 10

ST thiazolidineacetate oxo pyridinecarboxamido; isoniazid cyclization
thiomalic acid; bactericide thiazolidineacetate isoniazid

IT Cyclocondensation reaction
(of isoniazids with thiomalic acid, thiazolidinone derivs. from)

IT Bactericides, Disinfectants, and Antiseptics
(pyridinecarboxamidooxothiazolidineacetic acids and isoniazid derivs.)

IT 54-85-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with aldehydes)

IT 70-49-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with benzalisoniazids)

IT 89-98-5 90-02-8, reactions 90-59-5 98-01-1, reactions 99-61-6 100-52-7, reactions 100-83-4 104-55-2 104-88-1, reactions 121-33-5 123-08-0 123-11-5, reactions 555-16-8, reactions 1829-34-1 2973-76-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with isoniazid)

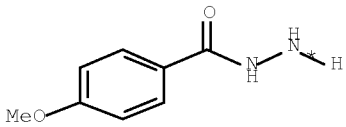
IT 24327-74-0P 36195-32-1P 103706-31-6P 103706-32-7P 103706-33-8P 103706-34-9P 103706-35-0P 103706-36-1P 103706-37-2P 103706-38-3P 103706-39-4P 103706-40-7P 103706-41-8P 103706-42-9P 103710-50-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and bactericidal activity of)

IT 149-17-7P 495-84-1P 533-02-8P 840-80-2P 840-81-3P,

preparation 893-42-5P 4813-07-4P 4813-11-0P 6342-46-7P
6956-53-2P 16012-25-2P 16012-26-3P 68639-25-8P 92160-05-9P
103706-30-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, cyclization with thiomalic acid, and bactericidal
activity of)

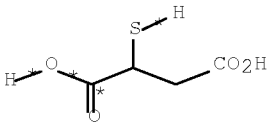
L107 ANSWER 24 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 105:78864 CASREACT Full-text
TITLE: Studies on antitubercular agents. Preparation of 1-(4-methoxybenzoyl)-2-benzalhydrazines and 2-aryl-3-(4-methoxybenzamido)-5-carboxymethyl-4-thiazolidinones
AUTHOR(S): Patel, J. M.; Dave, M. P.; Langalia, N. A.; Thaker, K. A.
CORPORATE SOURCE: Dep. Chem., Bhavnagar Univ., Bhavnagar, 364 002, India
SOURCE: Journal of the Indian Chemical Society (1985), 62(3), 254-5
CODEN: JICSAH; ISSN: 0019-4522
DOCUMENT TYPE: Journal
LANGUAGE: English
AB p-MeOC6H4CONHNH2 was condensed with RCHO [R = (un)substituted Ph, PhCH:CH] to give p-MeOC6H4CONHN:CHR (I) in 70-88% yield, which cyclized with HO2CCH2CH(SH)CO2H to give the thiazolidinones II in 55-76% yield. All I and II possess significant tuberculostatic activity at 30 μg/mL against Mycobacterium tuberculosis.

RX(27) OF 39 COMPOSED OF RX(1), RX(14)
RX(27) A + B + AC ===> AD



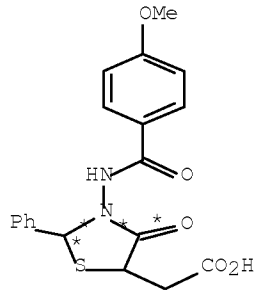
A

B



AC

2
STEPS
→



AD

RX(1) RCT A 3290-99-1, B 100-52-7
PRO C 51651-81-1
SOL 64-17-5 EtOH

RX(14) RCT AC 70-49-5, C 51651-81-1
RGT AE 7646-85-7 ZnCl2
PRO AD 103635-31-0

CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

ST thiazolidinone benzamidocarboxymethyl prepn tuberculostatic; benzalhydrazine benzoyl prepn tuberculostatic; hydrazine benzal benzoyl prepn tuberculostatic; tuberculostatic thiazolidinone benzalhydrazine

IT Tuberculostatics
((methoxybenzoyl)benzalhydrazines and aryl(methoxybenzamido)(carboxymethyl)thiazolidinones)

IT Cyclocondensation reaction
(of (methoxybenzoyl)benzalhydrazines with thiomalic acid, thiazolidinone derivs. from)

IT 3290-99-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with aldehydes)

IT 89-98-5 90-02-8, reactions 90-59-5 99-61-6 100-52-7, reactions 104-55-2 120-14-9 120-57-0 121-33-5 123-08-0 123-11-5, reactions 555-16-8, reactions 587-04-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with methoxybenzoylhydrazine)

IT 70-49-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of, with (methoxybenzoyl)benzalhydrazines)

IT 103635-31-0P 103635-32-1P 103635-33-2P 103635-34-3P 103635-35-4P 103635-36-5P 103635-37-6P 103635-38-7P 103635-39-8P 103635-40-1P 103635-41-2P 103635-42-3P 103635-43-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and tuberculostatic activity of)

IT 51651-81-1P 51771-21-2P 51771-23-4P 77218-64-5P 100969-61-7P 103635-23-0P 103635-24-1P 103635-25-2P 103635-26-3P 103635-27-4P 103635-28-5P 103635-29-6P 103635-30-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, cyclization with thiomalic acid, and tuberculostatic activity of)

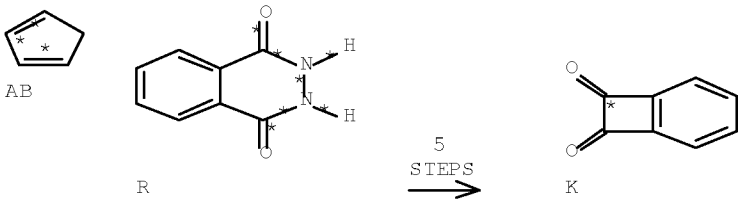
L107 ANSWER 25 OF 50 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 101:210366 CASREACT Full-text
TITLE: Observation of carbon-13 rearrangement in [13C2]biphenylene formed from benzyne on pyrolysis of [1,6-13C2]phthalic anhydride and [2a,3-13C2]benzocyclobutenedione
AUTHOR(S): Barry, Martin; Brown, Roger F. C.; Eastwood, Frank W.; Gunawardana, Dionne A.; Vogel, Caspar
CORPORATE SOURCE: Dep. Chem., Monash Univ., Clayton, 3168, Australia
SOURCE: Australian Journal of Chemistry (1984), 37(8), 1643-57
CODEN: AJCHAS; ISSN: 0004-9425
DOCUMENT TYPE: Journal
LANGUAGE: English

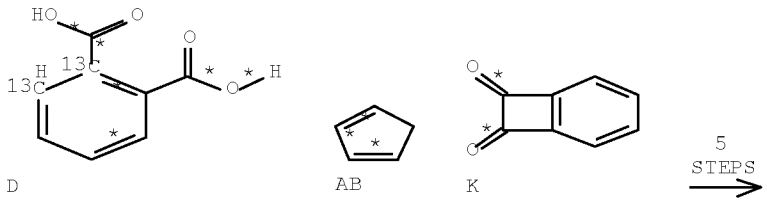
AB Examination of [13C2]biphenylene formed by gas phase pyrolysis of doubly labeled benzyne precursors shows that the principal pyrolytic process leads to overall 1,2 → 1,3 rearrangement of the C6H4 carbon skeleton either in an intermediate C7H4O before decarbonylation or in benzyne itself. A minor process involves an apparent 1,3-hydrogen shift.

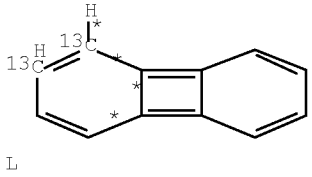
RX(74) OF 81 COMPOSED OF REACTION SEQUENCE RX(16), RX(10), RX(5) AND REACTION SEQUENCE RX(2), RX(13), RX(17), RX(11), RX(5)

...R + AB ===> K...
... D + AB + K ===> L



START NEXT REACTION SEQUENCE





RX(16) RCT R 1445-69-8, AB 542-92-7
PRO P 17644-94-9
CAT 546-67-8 Pb(OAc)4

RX(10) RCT P 17644-94-9
PRO K 6383-11-5

RX(2) RCT D 93127-70-9
PRO E 93127-64-1
CAT 108-24-7 Ac2O

RX(13) RCT E 93127-64-1
RGT S 302-01-2 N2H4
PRO U 93127-65-2
CAT 64-19-7 AcOH

RX(17) RCT U 93127-65-2, AB 542-92-7
PRO Q 93127-66-3
CAT 546-67-8 Pb(OAc)4

RX(11) RCT Q 93127-66-3
PRO J 93127-67-4

RX(5) RCT J 93127-67-4, K 6383-11-5
PRO L 93127-74-3

CC 22-8 (Physical Organic Chemistry)

ST pyrolysis phthalic anhydride rearrangement; benzocyclobutenedione pyrolysis; rearrangement benzyne labeled

IT Rearrangement
(of benzyne)

IT Thermal decomposition
(of phthalic anhydride or benzocyclobutenedione, rearrangement of benzyne in relation to)

IT Hydrogen shift
(1,3-, in pyrolysis of phthalic anhydride or benzocyclobutenedione)

IT 14630-40-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of, by (dihydrodioxothienyl)propanoyl chloride)

IT 7446-09-5, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of, with heptadienoic acid in presence of hydroquinone)

IT 5747-09-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of, with sulfur dioxide in presence of hydroquinone)

IT 462-80-6P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(formation and rearrangement of)

IT 85-44-9
RL: PRP (Properties)
(formation of biphenylene from)

IT 93127-59-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acylation by, of carbon-13 labeled bis(trimethylsilyl)acetylene)

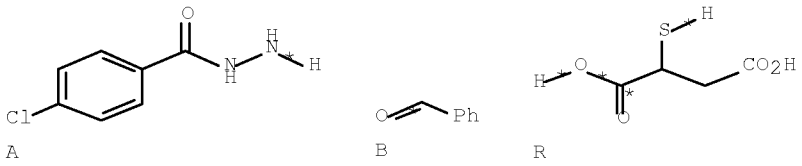
IT 93127-58-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acylation of, with (dihydrodioxothienyl)propanoyl chloride)

IT 93127-70-9P 93127-72-1P 93127-73-2P 93127-74-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and carbon-13 NMR spectrum of)

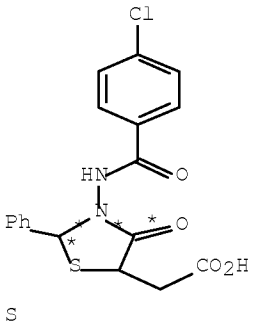
IT 93127-61-8P 93127-68-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and desilylation of)
IT 93127-60-7P 93127-64-1P 93127-71-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and formation of biphenylene from)
IT 73121-53-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and generation of acetylene from)
IT 93127-63-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
IT 17644-94-9P 93127-66-3P 93127-67-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and pyrolysis of)
IT 93127-65-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with cyclopentadiene in presence of lead tetraacetate)
IT 93127-62-9P 93127-69-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, sulfur dioxide elimination, and cyclization of)
IT 84-58-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (dihydrodioxothienyl)pentynone)
IT 7439-95-4, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reduction by, of carbon-13 labeled barium carbonate)
IT 75-77-4, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(silylation by, of lithiated, carbon-13 labeled acetylene)

L107 ANSWER 26 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 104:129829 CASREACT Full-text
TITLE: Synthesis and antitubercular activity of some 2-aryl-3-(4-chlorobenzamido)-5-substituted-4-thiazolidinones
AUTHOR(S): Dave, M. P.; Patel, J. M.; Langalia, N. A.; Thaker, K. A.
CORPORATE SOURCE: Dep. Chem., Bhavnagar Univ., Bhavnagar, 364 002, India
SOURCE: Journal of the Indian Chemical Society (1984), 61(10), 891-2
CODEN: JICSAH; ISSN: 0019-4522
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Title compds. I (R = Ph, C6H4NO2-2, C6H4NO2-4, C6H4OMe-4, C6H3(OMe)2-3,4; R1 = H, Me, CH2CO2H) were prepared by condensation of Schiff bases II with mercaptoalkanoic acids. I show antitubercular activity against Hs7Rv strain at 30 μg/mL in vitro.

RX(21) OF 33 COMPOSED OF RX(1), RX(8)
RX(21) A + B + R ===> S



2
STEPS



RX(1) RCT A 536-40-3, B 100-52-7
PRO C 31061-81-1
SOL 64-17-5 EtOH

RX(8) RCT R 70-49-5, C 31061-81-1
RGT T 7646-85-7 ZnCl2
PRO S 101125-20-6

CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

ST benzamidothiazolidinone prepn antituberular; Schiff base condensation mercaptoalkanoic acid

IT Tuberculostatics
(benzamidothiazolidinones)

IT Cyclocondensation reaction
(of mercaptoalkanoic acids with Schiff bases, thiazolidinones from)

IT 536-40-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with aromatic aldehydes)

IT 100-52-7, reactions 120-14-9 123-11-5, reactions 552-89-6 555-16-8, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with chlorobenzoic acid hydrazide)

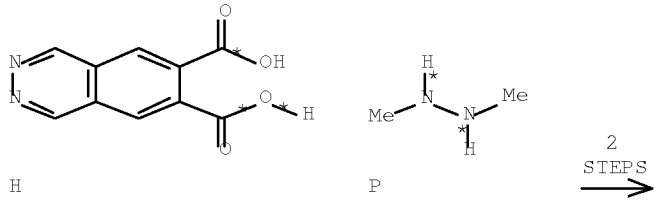
IT 68-11-1, reactions 70-49-5 79-42-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with benzylidene hydrazines)

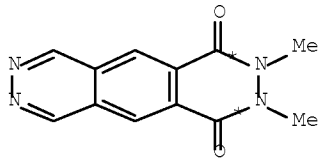
IT 31061-81-1 51771-28-9 51771-29-0 62982-45-0 101125-30-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with mercaptoalkanoic acids, thiazolidinones from)

IT 101125-15-9P 101125-16-0P 101125-17-1P 101125-18-2P
101125-19-3P 101125-20-6P 101125-21-7P 101125-22-8P
101125-23-9P 101125-24-0P 101125-25-1P 101125-26-2P
101125-27-3P 101125-28-4P 101125-29-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and antitubercular activity of)

L107 ANSWER 27 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 99:139879 CASREACT Full-text
TITLE: New phthalazine and pyridazino[4,5-g]phthalazine derivatives
AUTHOR(S): De Sio, Francesco; Chimichi, Stefano; Nesi, Rodolfo; Cecchi, Lucia
CORPORATE SOURCE: Ist. Chim. Org., Univ. Firenze, Florence, 50121, Italy
SOURCE: Heterocycles (1983), 20(7), 1279-84
CODEN: HTCYAM; ISSN: 0385-5414
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Ester I (R = R1 = CO2Et) was prepared by NaAlH4 reduction of 1,2,4,5-(EtO2C)4C6H2 to give 1,2-(EtO2C)2C6H2(CHO)2-4,5, which was cyclized with N2H4. I (R = R1 = CO2Et) was reduced to I (R = R1 = CH2OH) or hydrolyzed to the acid and dehydrated to the anhydride which was treated with R2NHNH2 to give II (R2 = H, Me, R3 = OH). Methylation of II (R2 = H, R3 = OH) with CH2N2 gave II (R2 = Me, R3 = OMe). II (R2 = H, Me, R3 = OH) exist as keto-enol tautomers. Pyridazino[4,5-g]phthalazine was prepared by NaAlH4 reduction of I (R = R1 = CO2Et) and treatment with N2H4.

RX(25) OF 58 COMPOSED OF RX(7), RX(11)
RX(25) H + P ===> N





N
YIELD 78%

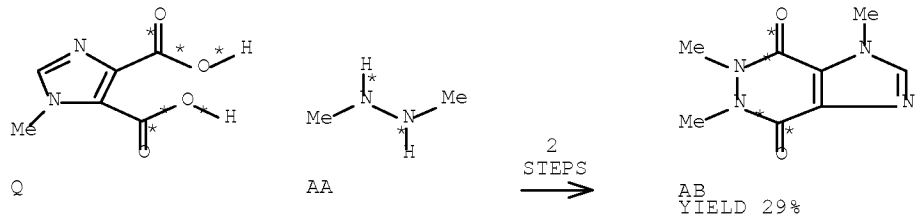
RX(7) RCT H 87255-79-6

PRO F 87255-80-9
CAT 108-24-7 Ac2O

RX(11) RCT F 87255-80-9, P 540-73-8
PRO N 87255-84-3
CC 28-15 (Heterocyclic Compounds (More Than One Hetero Atom))
ST pyridazinophthalazinone prepn tautomerism;
phthalazinedicarboxylate
IT Cyclocondensation reaction
(of pthalazineidicarboxaldehydes with hydrazine,
pyridazinophthalazinones from)
IT 6634-01-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydride reduction of)
IT 87255-79-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and dehydration of)
IT 87255-81-0P 87255-82-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and methylation of)
IT 87255-76-3P 87255-80-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with hydrazine)
IT 87255-77-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and reactions of)
IT 260-63-9P 87255-78-5P 87255-83-2P 87255-84-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 60-34-4 540-73-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phthalazinedicarboxylic anhydride)

L107 ANSWER 28 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 99:22781 CASREACT Full-text
TITLE: 1-Alkyl(and 1-glucosyl)imidazole-4,5-dicarboxylic acid diamides
AUTHOR(S): Aleksandrova, I. Ya.; Khrustaleva, V. S.; Khromov-Borisov, N. V.
CORPORATE SOURCE: Nauchno-Issled. Inst. Eksp. Med., Leningrad, USSR
SOURCE: Zhurnal Organicheskoi Khimii (1983), 19(2), 416-20
CODEN: ZORKAE; ISSN: 0514-7492
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Alkylation of I (R1 = H) by EtBr or acetobromoglucose gave intermediate I (R1 = Et, glucosyl) which were treated with amines to give 35-84% II (R1 = Et, R2 = H, Et; R1 = glucosyl, R2 = H, Me). Addnl. obtained were II (R1 = Me, Et, PhCH2, R2 = cyclohexyl; R1 = Me, Et, NHR2 = Me2N, piperidino). Cyclocondensation of 1-alkylimidazole-4,5-dicarbonyl chlorides with MeNHNHMe gave 29 and 30% III (R1 = Me, Et), resp.

RX(21) OF 26 COMPOSED OF RX(8), RX(14)
RX(21) Q + AA ===> AB



RX(8) RCT Q 19485-38-2
PRO R 42190-84-1

RX(14) RCT R 42190-84-1, AA 540-73-8
PRO AB 81609-12-3

CC 33-2 (Carbohydrates)
Section cross-reference(s): 28

ST imidazoledicarboxamide psychotropic; glucosylimidazoledicarboxamide

IT Psychotropics
(imidazoledicarboxamide derivs. as potential)

IT Amides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of alkyl- and glucosylimidazoledicarboxamides)

IT 74-88-4, reactions 74-96-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation by, of di-Me imidazoledicarboxylates)

IT 542-69-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation by, of imidazoledicarboxamides)

IT 3304-70-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation of, by alkyl halides)

IT 108-91-8, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation by, of alkylimidazoledicarboxylic acids)

IT 124-40-3, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation by, of ethylimidazoledicarbonyl chloride)

IT 110-89-4, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation by, of methylimidazoledicarbonyl chloride)

IT 86263-62-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation of, by dimethylamine)

IT 42190-84-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation of, by piperidine)

IT 540-73-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with methylimidazoledicarboxylic acid)

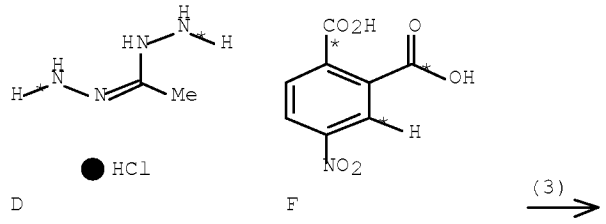
IT 3691-03-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and alkylation by Bu iodide)

IT 19485-38-2P 42190-83-0P 61467-27-4P 61523-49-7P
81609-12-3P 86263-54-9P 86263-55-0P 86263-56-1P
86263-57-2P 86263-58-3P 86263-59-4P 86263-60-7P
86263-61-8P 86281-16-5P 86281-17-6P 86281-18-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

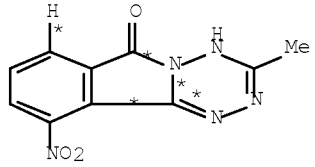
ACCESSION NUMBER: 91:175308 CASREACT Full-text
TITLE: Hydrazidines. III. Synthesis of 1,2,4,5-tetrazino[3,2-a]isoindoles
AUTHOR(S): Degen, Hans Juergen; Haller, Sigrid; Heeg, Kurt; Neunhoeffer, Hans
CORPORATE SOURCE: Inst. Org. Chem. Biochem., Tech. Hochsch. Darmstadt, Darmstadt, D-6100, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1979), 112(6), 1981-90
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German

AB The tetrazinoisoindolone I (X = O) was prepared by treating H2NNHCMe:NNH2 with phthalic acid derivs. The 7- and 10-nitro derivs. of I (X = O) was similarly prepared I (X = O) was converted to I (X = S) with P2S5. It was chlorinated with POCl3 to give II (R = Cl), which reacted with R1NH2 (R1 = Ph, 4-O2NC6H4, 4-MeOC6H4, cyclohexyl) to give imines I (X = NR1) and with amines R22NH (R2 = Me, Ph) to give II (R = NR22). Oxidation and methanolysis of I (X = O) gave the ring-cleavage product III, whereas oxidation of I (X = O, NR1) in CHCl3 gave dimers.

RX(3) OF 31 D + F ===> G...



D F



G
YIELD 75%

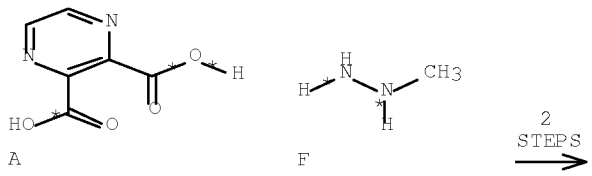
RX(3) RCT D 56873-72-4, F 610-27-5
PRO G 70966-80-2

CC 28-22 (Heterocyclic Compounds (More Than One Hetero Atom))
ST tetrazinoisoindolone prepn reaction; tetrazinylbenzoate; acetylhydrazine hydrazone phthalic acid
IT Cyclocondensation reaction
(of acetylhydrazine hydrazone with phthalic acid derivs., tetrazinoisoindolones from)
IT Compound, m. 151-152°C
Compound, m. 158-160°C
Compound, m. 182°C
Compound, m. 205-207°C
Cyclohexyliminomethyldihydro-1,2,4,5-tetrazino[3,2-a]isoindol

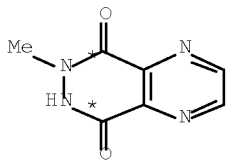
dimeric derivative
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 70966-77-7P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepare and oxidation of)
IT 70966-81-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amination of)
IT 70966-79-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and chlorination of)
IT 70966-80-2P 70966-83-5P 70966-84-6P 70966-85-7P 70966-86-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
IT 70966-78-8P 70966-82-4P 70966-87-9P 70966-88-0P 70966-89-1P 70966-90-4P 70980-60-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 85-44-9 88-95-9 119-67-5 601-70-7 603-11-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with acetylhydrazine hydrazone)
IT 56873-72-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phthalic acid derivs.)

L107 ANSWER 30 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 92:94345 CASREACT Full-text
TITLE: Synthesis of derivatives of 4-hydroxypyrazino[2,3-d]pyridazin-1-one
AUTHOR(S): Zyczynska-Baloniak, Irena; Czajka, Roman; Linkowska, Ewa
CORPORATE SOURCE: Inst. Chem. Anal., Sch. Med., Poznan, 60780, Pol.
SOURCE: Polish Journal of Chemistry (1978), 52(12), 2461-5
CODEN: PJCHDQ; ISSN: 0137-5083
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Pyrazinopyridazinones I (R = H, Me, R1 = OH) were obtained by treating pyrazine-2,3-dicarboxylic anhydride with RNHNH2 and were acetylated to I (R1 = OAc). Treatment of I (R = H, R1 = OH) with Br gave the 5,8-dioxide. Methylation of I (R = H, R1 = OH) gave the dione II and I (R = OMe, R1 = Me) which was also oxidized to the 5,8-dioxide. I (R = Me, R1 = OH) was chlorinated to I (R = Me, R1 = Cl) by POCl3.

RX(14) OF 36 COMPOSED OF RX(1), RX(3)
RX(14) A + F ===> G



A F



G

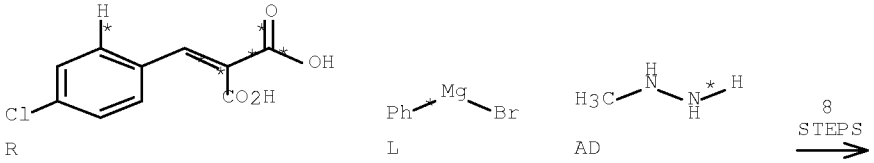
RX(1) RCT A 89-01-0
PRO B 4744-50-7
CAT 108-24-7 Ac2O

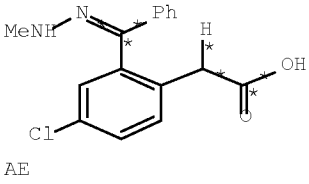
RX(3) RCT B 4744-50-7, F 60-34-4
PRO G 72668-56-5
CC 28-18 (Heterocyclic Compounds (More Than One Hetero Atom))
ST pyrazinopyridazinone; pyrazinedicarboxylic anhydride hydrazine cyclocondensation
IT 89-01-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(dehydration of)
IT 13480-40-5P 72668-56-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetylation of)
IT 70372-18-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
IT 4744-50-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with hydrazine)
IT 13480-41-6P 70372-17-7P 72668-57-6P 72668-58-7P 72668-59-8P 72668-60-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 60-34-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with pyrazinedicarboxylic anhydride)

L107 ANSWER 31 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 85:46605 CASREACT Full-text
TITLE: 2,3-Benzodiazepine systems. II. 4-Oxo-3,5-dihydro(4H)-2,3-benzodiazepines. Synthesis and pharmacological study
AUTHOR(S): Flammang, Michel; Wermuth, Camille G.
CORPORATE SOURCE: Fac. Pharm., Univ. Louis Pasteur, Strasbourg, Fr.
SOURCE: European Journal of Medicinal Chemistry (1976), 11(1), 83-7
CODEN: EJMCA5; ISSN: 0223-5234
DOCUMENT TYPE: Journal
LANGUAGE: French
AB Benzodiazepinones I (R = H, Cl; R1 = H, Me; R2 = H, Me, morpholinoethyl, morpholinopropyl, pyrrolidinoethyl; R3 = H, OMe, Cl) (11 compds.) were prepared by treating 4-RC6H4CHO with CH2(CO2H)2, cyclizing 4-RC6H4CH:CHCO2H, treating II (X = O) with 4-R3C6H4MgBr, dehydrating II (X = OH,C6H4R3-4), oxidizing the indenes, and condensing 4,2-R(4-R3C6H4CO)C6H3CH2CO2H with R2NHNH2. I had much lower tranquilizing activity than diazepam.

RX(113) OF 123 COMPOSED OF RX(8), RX(2), RX(34), RX(3), RX(11), RX(14), RX(16), RX(17)

RX(113) R + L + AD ===> AE





AE

RX(8) RCT R 17449-02-4
PRO F 1615-02-7

RX(2) RCT F 1615-02-7
PRO G 2019-34-3

RX(34) RCT G 2019-34-3
RGT BC 7719-09-7 SOCl2
PRO H 52085-96-8
CAT 110-86-1 Pyridine

RX(3) RCT H 52085-96-8
RGT J 7446-70-0 AlCl3
PRO I 14548-38-0

RX(11) RCT I 14548-38-0, L 100-58-3
PRO W 59749-77-8

RX(14) RCT W 59749-77-8
PRO AA 59749-79-0
CAT 144-62-7 (CO2H)2

RX(16) RCT AA 59749-79-0
RGT C 10588-01-9 Na2Cr2O7, D 7664-93-9 H2SO4
PRO AC 41148-47-4
CAT 657-84-1 Na tosylate

RX(17) RCT AC 41148-47-4, AD 60-34-4
PRO AE 341494-81-3

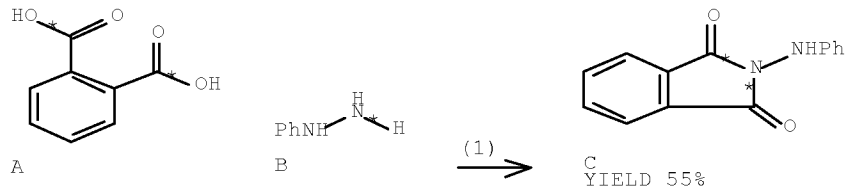
CC 28-23 (Heterocyclic Compounds (More Than One Hetero Atom))
ST benzodiazepinone tranquilizer; benzoylphenylacetate condensation hydrazine
IT Tranquilizers
(benzo[d][1,2]diazepinones)
IT 60-34-4 302-01-2, reactions 2154-24-7 13562-40-8

59749-74-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with benzoylphenylacetic acids)
IT 10271-33-7P 23107-96-2P 41148-47-4P 41293-29-2P
50439-04-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and condensation of, with hydrazines)
IT 621-82-9P, preparation 1615-02-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and cyclization of)
IT 24387-75-5P 36374-47-7P 59749-75-6P 59749-76-7P
59749-77-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and dehydration of)
IT 1961-97-3P 26465-83-8P 38199-92-7P 59749-78-9P 59749-79-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
IT 26465-81-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with aroyl magnesium bromides)
IT 83-33-0P 14548-38-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with aroylmagnesium bromides)
IT 59749-66-5P 59749-67-6P 59749-71-2P 59749-72-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and tranquilizing activity of)
IT 35011-63-3P 35011-64-4P 37388-25-3P 59749-68-7P
59749-69-8P 59749-70-1P 59749-73-4P 59749-80-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 100-58-3 873-77-8 13139-86-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with indanones)
IT 104-88-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with malonic acid)
IT 141-82-2, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(with benzaldehydes)
IT 100-52-7, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(with malonic acid)

L107 ANSWER 32 OF 50 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 50:64402 CASREACT Full-text
TITLE: N'-2,4-Dinitrophenyl-N,N-phthaloylhydrazine
AUTHOR(S): Barakat, M. Z.; Shehab, S. K.; El-Sadr, M. M.
CORPORATE SOURCE: Abbassia Ein-Shams Univ., Cairo, Egypt
SOURCE: Journal of the Chemical Society (1955
) 3299-3300
CODEN: JCSOA9; ISSN: 0368-1769
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Phthalic acid (I) (1.66 g.), 1.08 g. PhNHNH2, and 3 g. anhydrous ZnCl2 in 20 ml. dioxane refluxed 2 hrs., cooled, poured onto ice, and the solid recrystd. from alc. or acetone yielded 55% yellow prisms of o-C6H4(CO)2NNHPh (II), m. 184°. II (0.8 g.) dissolved in 6 ml. hot glacial HOAc, cooled, treated dropwise with 2 ml. H2SO4 with shaking, then similarly with 2 ml. HNO3 (d. 1.45), allowed to stand 10 min., poured onto ice, and the solid recrystd. from aqueous alc. or glacial HOAc gave 0.58 g. 2,4-(O2N)2C6H3NHN(CO)2C6H4 (III) m. 270-72°. I (1.66 g.), 1.98 g. 2,4-(O2N)2C6H3NHNH2, and 3 g. anhydrous ZnCl2 in 20 ml. dioxane refluxed 2 hr., cooled, poured on ice, and the

solid recrystd. from glacial HOAc gave 50% III, mixed m.p. with the nitration product 272-4°. There formerly existed some doubt concerning the structure of III [cf. Hotte, J. prakt. Chemical 35, 265(1887) and Ohta (C.A. 46, 91e)].

RX(1) OF 1 A + B ===> C



RX(1) RCT A 88-99-3, B 100-63-0
PRO C 4870-16-0
SOL 123-91-1 Dioxane
NTE Classification: Heterocycle formation; Condensation; N-Acylation; Hydrazination; # Conditions: ZnCl2 1,4-dioxan; Rf 2h

CC 10 (Organic Chemistry)
IT 4870-16-0P, Phthalimide, N-anilino- 73753-98-7P, Phthalimide, N-2,4-dinitroanilino-
RL: PREP (Preparation)
(preparation of)

=> d l107 33-50 ibib ed abs hitstr hitind

L107 ANSWER 33 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:493567 HCAPLUS Full-text
DOCUMENT NUMBER: 143:26622
TITLE: Hydrazide catalytic production process from hydrazines and dicarboxylic acids in the presence of Lewis acids
INVENTOR(S): Lopes, Claudio Cerqueira; Lopes, Rosangela Sabattini Capella; Cardoso, Jari Nobrega; Alves Da Silva, Jacqueline; Ferreira Gomes, Leticia
PATENT ASSIGNEE(S): Universidade Federal do Rio de Janeiro-UFRJ, Brazil
SOURCE: PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

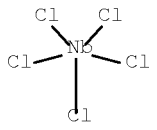
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005051870	A2	20050609	WO 2004-BR236	2004 1125
			<--	
WO 2005051870	A3	20050707		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,

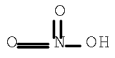
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT,
LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG,
CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

BR 2003007864	A	20050705	BR 2003-7864	2003 1125 <--
US 2007128680	A1	20070607	US 2006-595943	2006 0522 <--
PRIORITY APPLN. INFO.:			BR 2003-7864 A	2003 1125 <--
			WO 2004-BR236 W	2004 1125

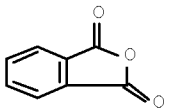
OTHER SOURCE(S): CASREACT 143:26622; MARPAT 143:26622
ED Entered STN: 10 Jun 2005
AB A process to form hydrazides (e.g., luminol) from the reaction of a hydrazine and a dicarboxylic (e.g., 3-nitrophthalic acid) using a Lewis acid catalyst (e.g., niobium pentachloride) is described. The reaction occurs in a safe reactional environment, utilizing smooth conditions, neither involving high temps. nor high pressures, producing the desired products with high yields, between 90-95%. The invention also describes a kit for utilization of chemiluminescent substances, comprised of two solns.
IT 10026-12-7, Niobium pentachloride
RL: CAT (Catalyst use); USES (Uses)
(hydrazide catalytic production process
from hydrazines and dicarboxylic
acids in the presence of Lewis acids
)
RN 10026-12-7 HCAPLUS
CN Niobium chloride (NbCl5) (CA INDEX NAME)



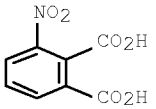
IT 7697-37-2, Nitric acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrazide catalytic production process
from hydrazines and dicarboxylic
acids in the presence of Lewis acids
)
RN 7697-37-2 HCAPLUS
CN Nitric acid (CA INDEX NAME)



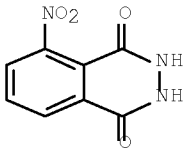
IT 85-44-9, Phthalic anhydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrazide catalytic production process from hydrazines and dicarboxylic acids in the presence of Lewis acids using)
RN 85-44-9 HCAPLUS
CN 1,3-Isobenzofurandione (CA INDEX NAME)



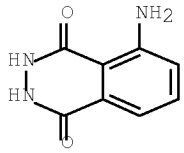
IT 603-11-2P, 3-Nitrophthalic acid 3682-15-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(hydrazide catalytic production process from hydrazines and dicarboxylic acids in the presence of Lewis acids using)
RN 603-11-2 HCAPLUS
CN 1,2-Benzenedicarboxylic acid, 3-nitro- (CA INDEX NAME)



RN 3682-15-3 HCAPLUS
CN 1,4-Phthalazinedione, 2,3-dihydro-5-nitro- (CA INDEX NAME)



IT 521-31-3P, Luminol
RL: SPN (Synthetic preparation); PREP (Preparation)
(hydrazide catalytic production process from hydrazines and dicarboxylic acids in the presence of Lewis acids using)
RN 521-31-3 HCAPLUS
CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



IC ICM C07C
CC 28-15 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 9, 41, 67, 80
ST hydrazide prepn; chemiluminescent hydrazide prepn
IT Amidation
Amidation catalysts
(hydrazidation; hydrazide catalytic production process from hydrazines and dicarboxylic acids in the presence of Lewis acids)
IT Hydrazides
RL: SPN (Synthetic preparation); PREP (Preparation)
(hydrazide catalytic production process from hydrazines and dicarboxylic acids in the presence of Lewis acids)
IT Nitration
Reduction
(hydrazide catalytic production process from hydrazines and dicarboxylic acids in the presence of Lewis acids using)
IT Lewis acids
RL: CAT (Catalyst use); USES (Uses)
(hydrazide catalytic production process from hydrazines and dicarboxylic acids in the presence of Lewis acids using)
IT Chemiluminescent substances
(preparation of)
IT Chemiluminescence spectroscopy
(preparation of kits for)
IT 7446-70-0, Aluminum chloride, uses 7447-39-4, Cupric chloride, uses 7487-94-7, MercuryII chloride, uses 7550-45-0, Titanium tetrachloride, uses 7637-07-2, Boron trifluoride, uses 7646-79-9, Cobalt chloride (CoCl2), uses 7646-85-7, Zinc chloride, uses 7647-18-9, Antimony pentachloride 7705-07-9, Titanium trichloride, uses 7705-08-0, Ferric chloride, uses 7718-54-9, Nickel chloride, uses 7758-89-6, Cuprous chloride 7784-34-1, Arsenic trichloride 7786-30-3, Magnesium chloride, uses 7787-47-5, Beryllium chloride 7787-60-2, Bismuth trichloride 7789-48-2, Magnesium bromide 10025-73-7, Chromium trichloride 10025-91-9, Antimony trichloride 10026-07-0, Tellurium tetrachloride 10026-10-5, Uranium tetrachloride 10026-11-6, Zirconium tetrachloride 10026-12-7, Niobium pentachloride 10049-06-6, Titanium dichloride 10108-64-2, Cadmium chloride 10294-34-5, Boron trichloride 13450-90-3, Gallium chloride 22441-45-8, Arsenic pentachloride
RL: CAT (Catalyst use); USES (Uses)
(hydrazide catalytic production process from hydrazines and dicarboxylic acids in the presence of Lewis acids

)
IT 7697-37-2, Nitric acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrazide catalytic production process
from hydrazines and dicarboxylic
acids in the presence of Lewis acids
)
IT 85-44-9, Phthalic anhydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrazide catalytic production process
from hydrazines and dicarboxylic
acids in the presence of Lewis acids
using)
IT 603-11-2P, 3-Nitrophthalic acid 3682-15-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(hydrazide catalytic production process
from hydrazines and dicarboxylic
acids in the presence of Lewis acids
using)
IT 521-31-3P, Luminol
RL: SPN (Synthetic preparation); PREP (Preparation)
(hydrazide catalytic production process
from hydrazines and dicarboxylic
acids in the presence of Lewis acids
using)
IT 67-64-1, Acetone, uses 67-68-5, Dmso, uses 68-12-2, Dmf, uses
123-91-1, Dioxane, uses 872-50-4, NMP, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; hydrazide catalytic production
process from hydrazines and
dicarboxylic acids in the presence of
Lewis acids using)

L107 ANSWER 34 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:983611 HCAPLUS Full-text
DOCUMENT NUMBER: 143:292527
TITLE: Bioavailability and improved delivery of alkaline pharmaceutical drugs
INVENTOR(S): Yu, Ruey J.; Van Scott, Eugene J.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S. Ser. No. 792,273.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005196418	A1	20050908	US 2005-50434	2005 0204
US 2004214215	A1	20041028	US 2004-792273	2004 0304
			<--	
WO 2006084174	A2	20060810	WO 2006-US3917	2006 0206
WO 2006084174	A3	20071004		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,

LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ,
OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI,
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL,
SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM,
AP, EA, EP, OA

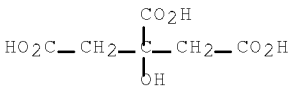
PRIORITY APPLN. INFO.:
US 2004-792273 A2 2004 0304
US 2003-452557P P 2003 0307
<--
US 2005-50434 A 2005 0204

OTHER SOURCE(S): MARPAT 143:292527
ED Entered STN: 09 Sep 2005

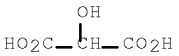
AB Embodiments of the invention relate to a composition, a process of making the composition, and to the use of the composition The compns. include a mol. complex formed between an alkaline pharmaceutical drug and at least one selected from a hydroxy acid, a polyhydroxy acid, a related acid, a lactone, or combinations thereof. The compns. provide improved bioavailability and improved delivery of the drug into the cutaneous tissues. For example, diphenhydramine hydrochloride 29 g (0.1 mol) was dissolved in water and 5 N sodium hydroxide generating diphenhydramine free base. Gluconolactone 18 g (0.1 mol) was added to form a mol. complex of 0.1 mol diphenhydramine free base with 0.1 mol gluconic acid/gluconolactone. The solution thus obtained was used for various forms of topical formulations including oil-in-water creams, lotions, gels and solns.

IT 77-92-9, Citric acid, reactions 80-69-3, Tartronic acid 87-69-4, Tartaric acid, reactions 87-69-4D, oligomers 133-37-9 147-73-9, Erythraric acid 320-77-4, Isocitric acid 597-44-4, Citramalic acid 666-99-9, Agaricic acid 6915-15-7, Malic acid 35388-57-9, Piscidic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(bioavailability and improved delivery of alkaline drugs by complexation with acids or lactones)

RN 77-92-9 HCAPLUS
CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)

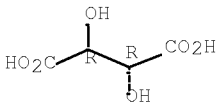


RN 80-69-3 HCAPLUS
CN Propanedioic acid, 2-hydroxy- (CA INDEX NAME)



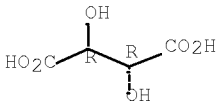
RN 87-69-4 HCAPLUS
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)- (CA INDEX NAME)

Absolute stereochemistry.



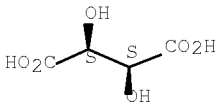
RN 87-69-4 HCAPLUS
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)- (CA INDEX NAME)

Absolute stereochemistry.



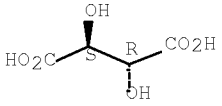
RN 133-37-9 HCAPLUS
CN Butanedioic acid, 2,3-dihydroxy-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.

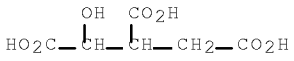


RN 147-73-9 HCAPLUS
CN Butanedioic acid, 2,3-dihydroxy-, (2R,3S)-rel- (CA INDEX NAME)

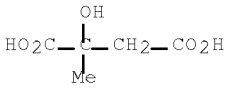
Relative stereochemistry.



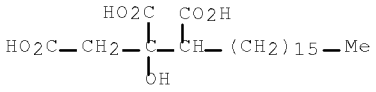
RN 320-77-4 HCAPLUS
CN Pentaric acid, 3-carboxy-2,3-dideoxy- (CA INDEX NAME)



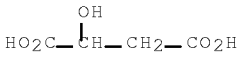
RN 597-44-4 HCAPLUS
CN Butanedioic acid, 2-hydroxy-2-methyl- (CA INDEX NAME)



RN 666-99-9 HCAPLUS
CN 1,2,3-Nonadecanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)

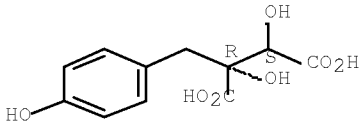


RN 6915-15-7 HCAPLUS
CN Butanedioic acid, 2-hydroxy- (CA INDEX NAME)

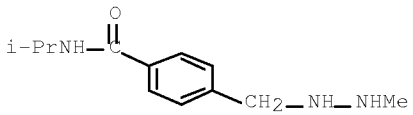


RN 35388-57-9 HCAPLUS
CN Butanedioic acid, 2,3-dihydroxy-2-[(4-hydroxyphenyl)methyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



IT 671-16-9, Procarbazine
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(bioavailability and improved delivery of alkaline drugs by complexation with acids or lactones)
RN 671-16-9 HCAPLUS
CN Benzamide, N-(1-methylethyl)-4-[(2-methylhydrazinyl)methyl]- (CA INDEX NAME)

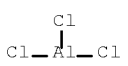


IT 7446-70-0, Aluminum chloride, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination with; bioavailability and improved delivery of alkaline drugs by complexation with acids or lactones)

RN 7446-70-0 HCAPLUS

CN Aluminum chloride (AlCl3) (CA INDEX NAME)



IC ICM A61K006-00
ICS A61K009-14

INCL 424401000; 424486000

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 62

IT Hair preparations
(conditioners; bioavailability and improved delivery of alkaline drugs by complexation with acids or lactones)

IT 50-21-5, Lactic acid, reactions 76-93-7, Benzilic acid, reactions 77-92-9, Citric acid, reactions 77-95-2, Quinic acid 79-14-1, Glycolic acid, reactions 80-69-3, Tartronic acid 87-69-4, Tartaric acid, reactions 87-69-4D, oligomers 89-65-6, Isoascorbic acid 90-64-2, Mandelic acid 90-80-2, Gluconolactone 96-82-2, Lactobionic acid 109-52-4D, Pentanoic acid, stereoisomers, reactions 127-17-3, Pyruvic acid, reactions 133-37-9 147-24-0, Diphenhydramine hydrochloride 147-73-9, Erythraric acid 150-97-0, Mevalonic acid 156-06-9, Phenylpyruvic acid 298-12-4, Glyoxylic acid 300-85-6, 3-Hydroxybutanoic acid 320-77-4, Isocitric acid 328-51-8, 2-Ketooctanoic acid 473-81-4, Glyceric acid 488-31-3, Pentaric acid 503-66-2, 3-Hydroxypropanoic acid 515-30-0, Atrolactic acid 526-95-4, D-Gluconic acid 526-99-8, Galactaric acid 527-00-4, Allaric acid 527-03-7D, Heptaric acid, stereoisomers 534-41-8, Cellobionic acid 534-42-9, Maltobionic acid 534-74-7, Isomaltobionic acid 544-57-0, Cerebronic acid 552-63-6, Tropic acid 584-63-4 597-44-4, Citramalic acid 599-04-2, Pantolactone 600-15-7, 2-Hydroxybutanoic acid 600-18-0, 2-Ketobutanoic acid 611-73-4, Benzoylformic acid 617-31-2, 2-Hydroxypentanoic acid 617-57-2, Lactyl lactate 617-73-2, 2-Hydroxyoctanoic acid 636-69-1, 2-Hydroxyheptanoic acid 666-99-9, Agaricic acid 674-26-0, Mevalonolactone 685-73-4, Galacturonic acid 815-89-4, xylo-5-Hexulosonic acid 828-01-3, 3-Phenyllactic acid 1112-33-0, Pantoic acid 1310-73-2, Sodium hydroxide, reactions 1336-21-6, Ammonium hydroxide 1821-02-9, 2-Ketopentanoic acid 2492-75-3, 2-Ketohexanoic acid 2782-86-7D, Heptonic acid, stereoisomers 3063-04-5, Glucoheptonolactone 3327-64-8, Gulonolactone 3402-98-0, Iduronic acid 3646-68-2, Glucosaminic acid 3909-12-4, Threonic acid 3956-93-2, Idonic acid 5666-23-9, Altraric acid 5768-54-7, Idaric acid 5965-65-1, Lactobionolactone 6064-63-7, 2-Hydroxyhexanoic acid 6543-97-1, Mannaric acid 6556-12-3, Glucuronic acid 6703-05-5, Lyxaric acid 6708-50-5, Mannosaminic acid 6814-36-4, Mannuronic acid 6915-15-7, Malic acid 7270-86-2 7558-19-2D, Hexaric acid, stereoisomers 7760-07-8D, Hexonic acid, stereoisomers 10158-64-2, Xylaric acid 10191-35-2, 2,3,4-Trihydroxybutanoic acid 10237-77-1, 3-Hydroxypentanoic acid 13088-48-7, 2-Ketoheptanoic acid 13171-74-9, Pentonic acid 13382-27-9, Galactonic acid 13425-57-5, 5-Hexulosonic acid 13431-32-8, Laminaribionic acid 13752-84-6, Erythronic acid 15769-56-9, Guluronic acid 16533-48-5, xylo-2-Hexulosonic acid 16742-48-6, 2-Hydroxyeicosanoic acid 17812-24-7, Ribonic acid 17828-56-7,

Xylonic acid 18404-70-1, Idonolactone 20246-52-0, Talonic acid
20246-53-1, Gulonic acid 20248-27-5, arabino-2-Hexulosonic acid
21675-38-7, Melibionic acid 22832-87-7, Miconazole nitrate
23351-51-1, Glucoheptonic acid 23593-75-1, Clotrimazole
24871-35-0, Altronic acid 25525-21-7, Glucaric acid
25596-90-1, Threonolactone 28060-81-3 28223-40-7, Lyxonic acid
28223-42-9, Allonic acid 28223-51-0, Alluronic acid
28223-52-1, Taluronic acid 28223-54-3, arabino-5-Hexulosonic
acid 28223-56-5, ribo-5-Hexulosonic acid 28630-70-8
28630-71-9 28700-18-7, Galacturonolactone 30450-85-2
30923-19-4, Lyxuronic acid 30923-20-7, Riburonic acid
30923-21-8, Xyluronic acid 30923-39-8, Arabinuronic acid
32449-92-6, Glucuronolactone 33012-62-3, Ribaric acid
35288-57-9, Piscidic acid 36088-30-9D, stereoisomers
42776-28-3, Maltobionolactone 52762-22-8, Cellobionolactone
70803-53-1 73803-83-5, 2-keto-Gulonic acid 80490-57-9,
2-Ketododecanoic acid 81176-80-9, Galactosaminic acid
84710-55-4, Threuronic acid 84710-56-5, Erythruronic acid
84710-57-6, Altruronic acid 91698-32-7 122242-55-1D,
stereoisomers 122242-56-2D, stereoisomers 214975-75-4,
D-ribo-2-Hexulosonic acid 224785-91-5, Vardenafil hydrochloride
318471-21-5 318471-23-7 318471-25-9 318471-27-1
318471-28-2 318471-36-2 318471-37-3 318471-57-7
762262-34-0D, Hepturonic acid, stereoisomers 763103-38-4D,
stereoisomers 763103-39-5 763103-40-8D, stereoisomers
763103-41-9 763103-42-0 763103-43-1 763103-44-2
763103-45-3 763103-47-5 763103-48-6D, stereoisomers
763103-49-7 763103-50-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(bioavailability and improved delivery of alkaline drugs by
complexation with acids or lactones)

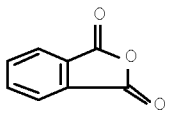
IT 50-44-2, Mercaptopurine 50-81-7, Ascorbic acid, biological
studies 51-64-9, Dextroamphetamine 52-86-8, Haloperidol
57-92-1, Streptomycin, biological studies 58-00-4, Apomorphine
58-32-2, Dipyridamole 58-61-7, Adenosine, biological studies
58-93-5, Hydrochlorothiazide 70-51-9, Deferoxamine 73-48-3,
Bendroflumethiazide 76-42-6, Oxycodone 77-86-1, Tromethamine
80-08-0, Dapsone 87-00-3, Homatropine 101-31-5, Hyoscyamine
104-31-4, Benzonatate 113-45-1, Methyl phenidate 127-69-5,
Sulfisoxazole 147-94-4, Cytarabine 148-79-8, Thiabendazole
303-53-7, Cyclobenzaprine 357-70-0, Galantamine 446-86-6,
Azathioprine 466-99-9, Hydromorphone 469-62-5, Propoxyphene
564-25-0, Doxycycline 657-24-9, Metformin 671-16-9,
Procarbazine 723-46-6, Sulfamethoxazole 738-70-5, Trimethoprim
739-71-9, Trimipramine 911-45-5, Clomiphene 1744-22-5,
Riluzole 2022-85-7, Flucytosine 2152-34-3, Pemoline
3313-26-6, Thiothixene 4291-63-8, Cladribine 4342-03-4,
Dacarbazine 5633-20-5, Oxybutynin 6493-05-6, Pentoxifylline
13292-46-1, Rifampin 13392-28-4, Rimantadine 16679-58-6,
Desmopressin 19387-91-8, Tinidazole 19982-08-2, Memantine
20594-83-6, Nalbuphine 20830-81-3, Daunorubicin 23214-92-8,
Doxorubicin 24584-09-6, Dexrazoxane 27203-92-5, Tramadol
29975-16-4, Estazolam 31431-39-7, Mebendazole 32986-56-4,
Tobramycin 34391-04-3, Levalbuterol 34580-13-7, Ketotifen
36791-04-5, Ribavirin 39809-25-1, Penciclovir 40431-64-9,
Dexmethyl phenidate 42399-41-7, Diltiazem 42794-76-3,
Midodrine 52485-79-7, Buprenorphine 53179-11-6, Loperamide
53714-56-0, Leuprolide 53910-25-1, Pentostatin 54063-53-5,
Propafenone 54143-55-4, Flecainide 55096-26-9, Nalmefene
55985-32-5, Nicardipine 56420-45-2, Epirubicin 58581-89-8,
Azelastine 58957-92-9, Idarubicin 59803-98-4, Brimonidine
61379-65-5, Rifapentine 63590-64-7, Terazosin 63675-72-9,
Nisoldipine 65271-80-9, Mitoxantrone 66085-59-4, Nimodipine
66104-22-1, Pergolide 68475-42-3, Anagrelide 69655-05-6,
Didanosine 70052-12-9, Eflornithine 72509-76-3, Felodipine
72599-27-0, Miglustat 73573-87-2, Formoterol 73590-58-6,
Omeprazole 73963-72-1, Cilostazol 75847-73-3, Enalapril

76824-35-6, Famotidine 76963-41-2, Nizatidine 80621-81-4, Rifaximin 81103-11-9, Clarithromycin 81147-92-4, Esmolol 81403-80-7, Alfuzosin 81409-90-7, Cabergoline 82419-36-1, Ofloxacin 82626-48-0, Zolpidem 83015-26-3, Atomoxetine 83150-76-9, Octreotide 83799-24-0, Fexofenadine 83881-51-0, Cetirizine 83905-01-5, Azithromycin 84625-61-6, Itraconazole 85441-61-8, Quinapril 85622-93-1, Temozolomide 85721-33-1, Ciprofloxacin 86386-73-4, Fluconazole 86541-75-5, Benazepril 87239-81-4, Cefpodoxime proxetil 88040-23-7, Cefepime 88150-42-9, Amlodipine 95058-81-4, Gemcitabine 97682-44-5, Irinotecan 100643-71-8, Desloratadine 100986-85-4, Levofloxacin 101828-21-1, Butenafine 103060-53-3, Daptomycin 103577-45-3, Lansoprazole 103775-14-0, Moexiprilat 104227-87-4, Famciclovir 106650-56-0, Sibutramine 107233-08-9, Cevimeline 107753-78-6, Zafirlukast 111025-46-8, Pioglitazone 112362-50-2, Dalfopristin 112809-51-5, Letrozole 112811-59-3, Gatifloxacin 113665-84-2, Clopidogrel 113806-05-6, Olopatadine 115103-54-3, Tiagabine 115256-11-6, Dofetilide 115956-12-2, Dolasetron 116539-59-4, Duloxetine 117467-28-4, Cefditoren pivoxil 119141-88-7, Esomeprazole 120014-06-4, Donepezil 120138-50-3, Quinupristin 120279-96-1, Dorzolamide 120511-73-1, Anastrozole 123441-03-2, Rivastigmine 124937-51-5, Tolterodine 128196-01-0, Escitalopram 129618-40-2, Nevirapine 129722-12-9, Aripiprazole 134678-17-4, Lamivudine 135729-61-2, Palonosetron 136470-78-5, Abacavir 136817-59-9, Delavirdine 137234-62-9, Voriconazole 139264-17-8, Zolmitriptan 139755-83-2, Sildenafil 142340-99-6, Adefovir dipivoxil 143322-58-1, Eletriptan 143491-57-0, Emtricitabine 144034-80-0, Rizatriptan 144494-65-5, Tirofiban 144689-63-4, Olmesartan medoxomil 144701-48-4, Telmisartan 145040-37-5, Candesartan cilexetil 145158-71-0, Tegaserod 150378-17-9, Indinavir 151096-09-2, Moxifloxacin 151319-34-5, Zaleplon 152459-95-5, Imatinib 154323-57-6, Almotriptan 159989-64-7, Nelfinavir 165800-03-3, Linezolid 169590-42-5, Celecoxib 170729-80-3, Aprepitant 171596-29-5, Tadalafil 175463-14-6, Gemifloxacin 184475-35-2, Gefitinib 188627-80-7, Eptifibatide 191114-48-4, Telithromycin 198904-31-3, Atazanavir 201341-05-1, Tenofovir disoproxil 224785-90-4, Vardenafil 226256-56-0, Cinacalcet
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(bioavailability and improved delivery of alkaline drugs by complexation with acids or lactones)

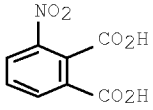
IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone 21-acetate 50-23-7, Hydrocortisone 50-28-2, Estradiol, biological studies 50-78-2, Acetylsalicylic acid 51-03-6, Piperonyl butoxide 51-21-8, 5-Fluorouracil 53-43-0, Dehydroepiandrosterone 53-86-1, Indomethacin 57-13-6, Urea, biological studies 57-63-6, Ethinyl estradiol 58-95-7, Vitamin E acetate 65-45-2, Salicylamide 67-73-2, Fluocinolone acetonide 67-78-7, Triamcinolone diacetate 68-26-8, Retinol 68-88-2, Hydroxyzine 69-72-7, Salicylic acid, biological studies 76-22-2, Camphor 76-25-5, Triamcinolone acetonide 79-81-2, Retinyl palmitate 89-78-1, Menthol 93-60-7, Methyl nicotinate 94-36-0, Benzoyl peroxide, biological studies 103-16-2, Monobenzone 108-46-3, Resorcinol, biological studies 108-95-2, Phenol, biological studies 112-38-9, Undecylenic acid 116-31-4, Retinal 118-56-9, Homosalate 118-60-5, Octyl salicylate 119-36-8, Methyl salicylate 119-61-9, Benzophenone, biological studies 123-31-9, Hydroquinone, biological studies 123-31-9D, Hydroquinone, drivs. 123-99-9, Azelaic acid, biological studies 124-43-6, Carbamide peroxide 126-07-8, Griseofulvin 127-47-9, Retinyl acetate 131-57-7, Oxybenzone 136-77-6, Hexylresorcinol 137-66-6, Ascorbyl palmitate 139-12-8, Aluminum acetate 302-79-4, Retinoic acid 356-12-7, Fluocinonide 382-67-2, Desoximetasone 404-86-4, Capsaicin 501-30-4, Kojic acid 1143-38-0, Anthralin 1319-82-0, Aminocaproic acid 1321-11-5,

Aminobenzoic acid 1321-23-9, Chloroxylenol 1327-41-9, Aluminum chlorohydroxide 1405-87-4, Bacitracin 1946-82-3, N-Acetyl-L-lysine 2152-44-5, Betamethasone valerate 3380-34-5, Triclosan 4759-48-2 5466-77-3, Octyl methoxycinnamate 5534-09-8, Beclomethasone dipropionate 5593-20-4, Betamethasone dipropionate 5611-51-8, Triamcinolone hexacetonide 6205-08-9, N-Acetylornithine 7446-70-0, Aluminum chloride, biological studies 7488-56-4, Selenium sulfide 7512-17-6, N-Acetylglucosamine 7704-34-9, Sulfur, biological studies 7722-84-1, Hydrogen peroxide, biological studies 9012-76-4, Chitosan 13463-41-7, Zinc pyrithione 13609-67-1, Hydrocortisone 17-butyrate 15687-27-1, Ibuprofen 16395-58-7, N-Acetylprolinamide 21245-02-3, Padimate O 21645-51-2, Aluminum hydroxide, biological studies 22204-53-1, Naproxen 25122-46-7, Clobetasol propionate 25655-41-8, Povidone iodine 28088-64-4, Aminosalicylic acid 29342-05-0, Ciclopirox 52645-53-1, Permethrin 57524-89-7, Hydrocortisone 17-valerate 66734-13-2, Aclovate 106685-40-9, Adapalene 112965-21-6, Calcipotriene
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination with; bioavailability and improved delivery of alkaline drugs by complexation with acids or lactones)

L107 ANSWER 35 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:205961 HCAPLUS Full-text
DOCUMENT NUMBER: 142:197900
TITLE: Product class 10: phthalazines
AUTHOR(S): Haider, N.; Holzer, W.
CORPORATE SOURCE: Germany
SOURCE: Science of Synthesis (2004), 16, 315-372
CODEN: SSCYJ9
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ED Entered STN: 15 Mar 2004
AB A review. Preparation is given for phthalazines via ring closure or transformation reactions, aromatization or substituent modification.
IT 85-44-9, 1,3-Isobenzofurandione 603-11-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of phthalazines)
RN 85-44-9 HCAPLUS
CN 1,3-Isobenzofurandione (CA INDEX NAME)

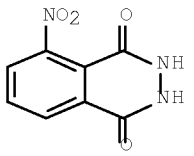


RN 603-11-2 HCAPLUS
CN 1,2-Benzenedicarboxylic acid, 3-nitro- (CA INDEX NAME)



IT 3682-15-3P
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of phthalazines)
RN 3682-15-3 HCAPLUS
CN 1,4-Phthalazinedione, 2,3-dihydro-5-nitro- (CA INDEX NAME)



CC 28-0 (Heterocyclic Compounds (More Than One Hetero Atom))
ST review phthalazene prepn; ring closure transformation
phthalazene prepn review; aromatization phthalazene
prepn review; substituent modification phthalazene
prepn review
IT 50-00-0, Formaldehyde, reactions 57-13-6, Urea, reactions
57-56-7, Hydrazinecarboxamide 60-34-4 62-53-3,
Benzenamine, reactions 64-19-7, Acetic acid, reactions 67-62-9
70-11-1 71-43-2, Benzene, reactions 74-89-5, Methanamine,
reactions 75-07-0, Acetaldehyde, reactions 75-16-1 75-24-1
77-78-1 79-19-6, Hydrazinecarbothioamide 79-22-1
84-58-2 85-44-9, 1,3-Isobenzofurandione 85-52-9
88-99-3, 1,2-Benzenedicarboxylic acid, reactions 89-74-7
91-15-6, 1,2-Benzenedicarbonitrile 93-60-7 93-98-1 95-47-6,
reactions 95-76-1 98-01-1, 2-Furancarboxaldehyde, reactions
98-03-3, 2-Thiophenecarboxaldehyde 98-09-9, Benzenesulfonyl
chloride 98-80-6 98-88-4, Benzoyl chloride 100-44-7,
reactions 100-52-7, Benzaldehyde, reactions 100-61-8,
reactions 100-63-0 104-87-0 104-88-1, reactions 105-36-2
105-39-5 105-53-3 105-56-6 106-42-3, reactions 106-47-8,
reactions 107-13-1, 2-Propenenitrile, reactions 107-14-2
108-24-7 108-38-3, reactions 108-88-3, reactions 108-95-2,
Phenol, reactions 109-01-3 109-65-9 109-72-8, reactions
109-73-9, 1-Butanamine, reactions 109-77-3, Propanedinitrile
109-84-2 110-18-9 110-46-3 113-00-8, Guanidine 118-92-3
119-67-5 120-14-9 120-57-0, 1,3-Benzodioxole-5-carboxaldehyde
121-69-7, reactions 123-11-5, reactions 123-75-1, Pyrrolidine,
reactions 128-08-5 140-29-4, Benzeneacetonitrile 141-43-5,
reactions 334-88-3 368-39-8 368-78-5 420-04-2, Cyanamide
462-80-6, 1,3-Cyclohexadien-5-yne 479-87-8 480-91-1 536-40-3
555-96-4 577-56-0 589-21-9 591-50-4 603-11-2
610-93-5 613-94-5 623-73-4 637-80-9 641-63-4 642-27-3
643-79-8, 1,2-Benzenedicarboxaldehyde 652-40-4 670-80-4
704-00-7 762-42-5 824-79-3 865-47-4 917-54-4 936-52-7
942-81-4 1122-91-4 1125-99-1 1129-28-8 1159-86-0
1530-45-6 1576-35-8 1673-47-8 1679-18-1 1766-63-8
1875-48-5 1885-14-9 1997-41-7 2142-73-6 2148-30-3
2166-14-5 2181-42-2 2258-87-9 2311-91-3 2360-45-4
2368-80-1 2417-72-3 2417-73-4 2435-53-2 2459-07-6
2459-09-8 2684-62-0 2741-57-3 2969-81-5 3260-44-4
3291-03-0 3468-11-9 3598-13-8 3598-14-9 3619-22-5
3900-89-8 3958-79-0 4114-31-2 4176-69-6 4333-62-4
4333-65-7 4445-58-3, [1,1'-Biphenyl]-3,4-dicarboxylic
acid 4521-61-3 4540-16-3 4821-94-7 4870-65-9
5004-42-2 5271-67-0, 2-Thiophenecarbonyl chloride 5720-05-8
5720-06-9 5720-07-0 5814-05-1 5999-20-2 6118-66-7
6781-29-9 6830-78-0 6833-23-4 7087-68-5 7112-37-0
7148-07-4 7464-91-7 7465-88-5 7477-28-3 7658-80-2
7677-24-9 7681-11-0, Potassium iodide (KI), reactions
7694-81-7, 1-Phthalazinecarbonitrile 10034-85-2, Hydriodic acid
10251-20-4 10365-98-7 10478-89-4 10478-99-6 13050-47-0

13209-15-9 13746-66-2 14092-11-6 14352-51-3 14660-52-7
14671-41-1 15994-77-1 16675-55-1 16721-80-5, Sodium sulfide
(Na(SH)) 17082-09-6 17127-13-8 17933-03-8 18138-18-6
18496-19-0 18584-63-9 19064-68-7 19172-47-5 19641-29-3
20277-69-4 21343-93-1 21950-75-4 22446-12-4 23952-05-8
24280-34-0 24826-74-2 25641-99-0 25732-35-8 27693-49-8
29360-77-8 32003-14-8 33027-12-2 33133-69-6 33901-44-9
33901-46-1 34613-09-7 37074-38-7 39519-78-3 39830-63-2
42760-46-3 42833-31-8 43073-12-7 43111-31-5 43111-32-6
46496-80-4 50635-21-7 50635-22-8 50635-23-9 52010-22-7
52044-75-4 52302-45-1, 1,3-Benzodioxole-5,6-dicarboxaldehyde
54109-03-4 56107-12-1 56107-13-2 56611-61-1 57901-54-9
58268-28-3 61503-68-2 63503-60-6 63536-24-3 63536-25-4
63536-26-5 63536-27-6 63536-28-7 64019-77-8 64779-60-8
65095-33-2 65237-17-4 65489-47-6 66645-91-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of phthalazines)
IT 66645-92-9 66859-13-0 67081-02-1 70097-45-9 70801-31-9
70801-33-1 73661-77-5 73661-78-6 73661-79-7 75998-18-4
76240-43-2 76972-35-5 79690-84-9 84641-77-0 86355-12-6
87255-76-3 89516-24-5 90719-21-4 90915-39-2 91054-33-0
91566-88-0 92722-88-8 95884-14-3 97694-85-4 99161-49-6
100448-45-1 100448-46-2 100537-30-2 101440-97-5
101889-52-5 105850-89-3 112633-87-1 112633-89-3
114202-92-5 119838-09-4 121561-18-0 122665-83-2
124433-93-8 129221-76-7 132960-21-5 137207-61-5
137207-65-9 137382-32-2 137382-37-7 143915-58-6
153078-00-3 153078-01-4 155937-09-0 155937-30-7
161851-52-1 170373-53-2 178309-37-0 183968-10-7
189213-58-9 210166-63-5 210166-73-7 219966-12-8
219966-14-0 226995-83-1 295793-36-1 297132-06-0
297132-07-1 297132-08-2 311339-02-3 350690-07-2
412339-50-5 479058-74-7 537033-42-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of phthalazines)
IT 119-39-1P, 1(2H)-Phthalazinone 253-52-1P, Phthalazine
484-23-1P 1445-69-8P 2257-69-4P 4673-39-6P 4752-10-7P
5004-45-5P 5004-46-6P 5004-48-8P 5784-45-2P 7624-86-4P
10001-35-1P 10132-01-1P 13925-27-4P 14503-64-1P
15994-75-9P 16015-46-6P, 1(2H)-Phthalazinethione 17341-79-6P
17987-70-1P, 1,4-Phthalazinediamine 19064-69-8P,
1-Phthalazinamine 21131-44-2P 21452-56-2P 21948-74-3P
25947-13-1P 35392-60-0P 38710-51-9P 39794-30-4P
40125-48-2P 40848-53-1P 51793-94-3P 54145-23-2P
57835-96-8P 63536-21-0P 68775-89-3P 75884-68-3P
75884-74-1P 77533-21-2P 81731-69-3P 89891-73-6P
89898-86-2P 90754-78-2P 91587-99-4P 94309-83-8P
100881-26-3P 101094-85-3P 103286-03-9P 103286-04-0P
105936-84-3P 107558-48-5P 107559-06-8P 128066-18-2P
154822-28-3P 154822-30-7P 154822-32-9P 154822-34-1P
155937-32-9P 167705-73-9P 173463-59-7P 203929-42-4P
203929-43-5P 203929-44-6P 203929-45-7P 203929-47-9P
203929-49-1P 203929-51-5P 203929-53-7P 203929-55-9P
203929-56-0P 203929-58-2P 203929-61-7P 203929-63-9P
203929-65-1P 203929-66-2P 203929-68-4P 203929-70-8P
221632-73-1P 221632-74-2P 221632-75-3P 221632-77-5P
228869-44-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation of phthalazines)
IT 56-37-1 64-18-6, Formic acid, reactions 110-86-1,
Pyridine, reactions 151-50-8, Potassium cyanide (K(CN))
534-17-8 1314-80-3, Phosphorus sulfide (P2S5) 7757-79-1,
Nitric acid potassium salt, reactions 7775-14-6 7782-44-7,
Oxygen, reactions 7782-92-5, Sodium amide (Na(NH2)) 7789-60-8,
Phosphorous tribromide 7803-49-8, Hydroxylamine, reactions
10026-13-8 10035-10-6, Hydrobromic acid, reactions 10544-50-0,

reactions 10588-01-9, Disodium dichromate 13716-12-6
16940-66-2 51364-51-3 337913-25-4
RL: RGT (Reagent); RACT (Reactant or reagent)
(preparation of phthalazines)

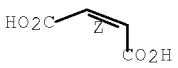
IT 86-54-4P 269-50-1P, 1,3-Dioxolo[4,5-g]phthalazine 1133-73-9P
2258-88-0P 3306-76-1P 3682-15-3P 4776-85-6P
4870-16-0P 5439-98-5P 5441-28-1P 6091-81-2P 6266-49-5P
6941-96-4P 7188-22-9P 10089-99-3P 10132-02-2P 10132-05-5P
13580-85-3P 13580-86-4P 13580-88-6P 13705-95-8P
14062-52-3P 14161-35-4P 16676-79-2P 17045-94-2P
17045-95-3P 18393-54-9P 18496-20-3P 18584-50-4P
18584-52-6P 18584-53-7P 18584-54-8P 18636-89-0P
18640-46-5P 18697-31-9P 21948-84-5P 23100-01-8P
24129-03-1P 24129-10-0P 24953-61-5P 24953-63-7P
24953-64-8P 24953-65-9P 25131-53-7P 25732-39-2P
25732-41-6P 25732-42-7P 26238-15-3P 26641-43-0P
28081-56-3P 29415-71-2P 29902-28-1P 36503-83-0P
38933-79-8P 39794-28-0P 39794-29-1P 39998-72-6P
41886-43-5P 49572-99-8P 51334-85-1P 51935-42-3P
54145-30-1P 57413-62-4P 57835-94-6P 59283-65-7P
59908-32-6P 60889-20-5P 61503-69-3P 62645-07-2P
63536-23-2P 63536-29-8P 63536-30-1P 63536-31-2P
63536-36-7P 66859-14-1P 68775-90-6P 68775-92-8P
71271-35-7P 73662-08-5P 73662-09-6P 73662-10-9P
76240-45-4P 76240-46-5P 76240-47-6P 76462-35-6P
76462-36-7P 76870-65-0P 76972-37-7P 76972-84-4P
76972-85-5P 81214-62-2P 81731-72-8P 82908-72-3P
82908-80-3P 84257-71-6P 86355-25-1P 87166-52-7P
87166-60-7P 87166-61-8P 87255-77-4P 89898-93-1P
89898-94-2P 89898-95-3P 89939-65-1P 90876-71-4P
93517-74-9P 93517-75-0P 93517-76-1P 93517-77-2P
94106-83-9P 95647-35-1P 97694-84-3P 97694-87-6P
98329-37-4P 98670-35-0P 98670-36-1P 98911-72-9P
99161-50-9P 99161-51-0P 99185-48-5P 100139-18-2P
100330-23-2P 100448-25-7P 100448-26-8P 100448-27-9P
100448-47-3P 100448-48-4P 100448-50-8P 100541-08-0P
100962-00-3P 101494-94-4P 101495-53-8P 101721-36-2P
102072-84-4P, 5-Phthalazinamine 103038-14-8P 103286-05-1P
103286-06-2P 103286-07-3P 103286-08-4P 103286-11-9P
103286-12-0P 103286-26-6P 103286-28-8P 103286-29-9P
103286-30-2P 104819-04-7P 105702-06-5P 108618-32-2P
110175-26-3P 110704-04-6P 112633-90-6P 112633-91-7P
113222-30-3P 121258-89-7P 121561-21-5P 122665-86-5P
122665-88-7P 124397-50-8P 124433-94-9P 124556-68-9P
124556-78-1P 126081-03-6P 126278-18-0P 126650-65-5P
129221-92-7P 132960-22-6P 132960-23-7P 134926-55-9P
134926-67-3P 134926-68-4P 135033-30-6P 135033-31-7P
135033-32-8P 135033-33-9P 135033-34-0P 135033-35-1P
136610-31-6P 136610-32-7P 136610-33-8P 137207-76-2P
137381-09-0P 137381-69-2P 137382-01-5P 137382-07-1P
137382-08-2P 137382-09-3P 137382-45-7P 137382-60-6P
137387-90-7P 155936-76-8P 155936-78-0P 155937-28-3P
156020-35-8P 159211-19-5P 163120-65-8P 163120-66-9P
170373-52-1P 170940-78-0P, 1-Phthalazinecarboxamide
171084-38-1P 171084-39-2P 173463-56-4P 173463-57-5P
173463-58-6P 173463-60-0P 173463-61-1P 173463-62-2P
173463-63-3P 173605-15-7P 178309-35-8P 178309-36-9P
180293-88-3P 182683-72-3P 184474-93-9P 189213-64-7P
201531-14-8P 203929-72-0P 203929-74-2P 203929-76-4P
203929-77-5P 203929-78-6P 203929-79-7P 203929-80-0P
203929-81-1P 203929-82-2P 203929-83-3P 203929-84-4P
203929-85-5P 203929-86-6P 203929-87-7P 203929-88-8P
203929-89-9P 203929-90-2P 203929-91-3P 204520-35-4P
210166-64-6P 210166-74-8P 212141-54-3P 212141-72-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of phthalazines)

IT 212142-91-1P 212142-96-6P 213765-59-4P 219966-13-9P

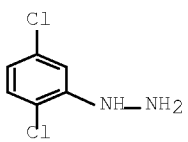
220411-63-2P 220411-64-3P 220411-65-4P 220411-66-5P
220411-67-6P 220411-68-7P 221632-80-0P 221632-81-1P
221632-83-3P 221632-85-5P 221632-86-6P 226385-58-6P
226385-61-1P 226385-64-4P 226385-65-5P 226995-82-0P
226995-84-2P 226995-85-3P 226995-86-4P 226995-87-5P
239077-04-4P 247256-15-1P 247256-16-2P 284031-00-1P
284031-06-7P 295780-86-8P 295793-48-5P 297132-09-3P
297132-10-6P 297132-11-7P 311339-03-4P 313505-06-5P
315678-22-9P 343600-10-2P 343945-05-1P 343965-02-6P
350690-08-3P 350690-10-7P 350690-11-8P 350690-12-9P
350690-14-1P 350690-15-2P 361364-46-7P 412339-45-8P
412340-49-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of phthalazines)
REFERENCE COUNT: 384 THERE ARE 384 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 36 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:202748 HCAPLUS Full-text
DOCUMENT NUMBER: 142:134633
TITLE: Product subclass 3: one sulfur, selenium, or tellurium atom and one nitrogen or phosphorus atom
AUTHOR(S): Ulrich, H.
CORPORATE SOURCE: Guilford, CT, 06437, USA
SOURCE: Science of Synthesis (2004), 17, 117-221
CODEN: SSCYJ9
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ED Entered STN: 14 Mar 2004
AB A review. Methods for preparing thiazines, selenazines, tellurazines, thiaphosphinines, selenaphosphinines, and telluraphosphinines are reviewed including cyclization, ring transformation, and substituent modification.
IT 110-16-7, 2-Butenedioic acid (2Z)-, reactions
305-15-7 10026-07-0, Tellurium tetrachloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thiazines, selenazines, tellurazines, thiaphosphinines, selenaphosphinines, and telluraphosphinines via cyclization, ring transformation and substituent modification)
RN 110-16-7 HCAPLUS
CN 2-Butenedioic acid (2Z)- (CA INDEX NAME)

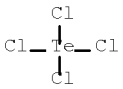
Double bond geometry as shown.



RN 305-15-7 HCAPLUS
CN Hydrazine, (2,5-dichlorophenyl)- (CA INDEX NAME)



RN 10026-07-0 HCAPLUS
CN Tellurium chloride (TeCl4), (T-4)- (CA INDEX NAME)



CC 29-0 (Organometallic and Organometalloidal Compounds)
ST review thiazine prepn cyclization ring transformation; selenazine prepn cyclization review; tellurazine prepn cyclization review; thiaphosphinine prepn cyclization review; selenaphosphinine prepn cyclization review; telluraphosphinine prepn cyclization review
IT 50-71-5, 2,4,5,6(1H,3H)-Pyrimidinetetrone 60-23-1 62-53-3, Benzenamine, reactions 64-18-6, Formic acid, reactions 64-19-7, Acetic acid, reactions 67-64-1, 2-Propanone, reactions 68-12-2, reactions 70-11-1 74-31-7 75-03-6 75-18-3 75-36-5, Acetyl chloride 75-44-5, Carbonic dichloride 75-77-4, reactions 77-78-1 78-94-4, 3-Buten-2-one, reactions 78-95-5 79-04-9 79-11-8, reactions 79-37-8, Ethanedioyl dichloride 83-33-0 88-88-0 89-61-2 90-30-2 93-91-4 94-02-0 94-09-7 95-16-9, Benzothiazole 96-22-0, 3-Pentanone 96-33-3 97-00-7 99-81-0 99-98-9 100-10-7 100-39-0 100-52-7, Benzaldehyde, reactions 101-16-6 101-17-7 101-23-5 101-73-5 103-72-0 103-79-7 104-77-8 104-87-0 104-88-1, reactions 105-45-3 105-50-0 106-49-0, reactions 107-02-8, 2-Propenal, reactions 108-31-6, 2,5-Furandione, reactions 108-94-1, Cyclohexanone, reactions 110-16-7, 2-Butenedioic acid (2Z)-, reactions 117-80-6 118-75-2, reactions 120-46-7 120-92-3, Cyclopentanone 121-69-7, reactions 122-37-2 122-39-4, reactions 122-51-0 123-11-5, reactions 123-19-3, 4-Heptanone 123-31-9, 1,4-Benzenediol, reactions 123-54-6, 2,4-Pentanedione, reactions 124-02-7 138-89-6 141-05-9 141-97-9 151-56-4, Aziridine, reactions 255-17-4, 2H-1,4-Benzothiazine 273-77-8, 1,2,3-Benzothiadiazole 305-15-7 325-66-6 328-20-1 346-44-1 367-57-7 368-75-2 451-40-1 455-16-3 488-48-2 497-25-6, 2-Oxazolidinone 500-41-4 502-49-8, Cyclooctanone 532-18-3 532-27-4 552-89-6 553-97-9 557-24-4 578-94-9 606-21-3 609-09-6 609-15-4 611-10-9 611-74-5 615-13-4 615-67-8 619-41-0 620-84-8 620-94-0 621-30-7 622-37-7 622-59-3 623-51-8 630-19-3 631-64-1 634-41-3 634-43-5 644-16-6 644-71-3 697-91-6 758-08-7 762-42-5 788-10-3 815-48-5 856-09-7 870-63-3 922-67-8 932-22-9 941-69-5 1004-00-8 1010-60-2 1017-44-3 1076-38-6 1076-59-1 1084-17-9 1113-59-3 1141-84-0 1141-88-4 1145-38-6 1205-39-6 1205-40-9 1205-64-7 1205-71-6 1207-92-7 1208-86-2 1211-87-6 1423-60-5, 3-Butyn-2-one 1494-26-4 1498-51-7 1677-80-1 1684-76-0 1752-24-5 1983-81-9 2213-63-0 2213-82-3 2435-53-2 2461-80-5 2632-13-5 2958-87-4 3131-54-2 3169-69-5 3169-88-8 3240-94-6 3623-15-2 3926-62-3 4023-80-7 4166-66-9 4171-83-9 4497-73-8 4614-24-8 4837-32-5 4837-33-6 4891-38-7 5030-67-1 5061-21-2 5367-24-8 5447-28-9 5468-85-9 5472-84-4 5862-75-9 6201-69-0 6274-29-9 6314-12-1 6314-38-1 6631-37-4 6764-10-9 6949-67-3 6949-68-4 7152-42-3 7218-04-4 7256-88-4 7291-00-1 7467-00-7 7608-66-4 7641-28-3 7781-26-2 7782-49-2, Selenium, reactions 10026-07-0, Tellurium tetrachloride 10031-27-3, Tellurium tetrabromide 10191-60-3 10425-70-4 12034-41-2, Sodium telluride (Na2Te) 13192-04-6 13298-49-2 13313-45-6

13451-16-6, Tellurium iodide (TeI2) 13677-27-5 14371-80-3
14371-81-4 14457-70-6, Selenium chloride (SeCl2) 14505-89-6
14650-81-8 15615-72-2 16078-95-8 16888-89-4 17123-20-5
17123-21-6 17644-99-4 17800-18-9 17802-11-8 17802-12-9
17802-14-1 17802-36-7 18889-18-4 19099-74-2 19195-32-5
19284-81-2 19643-45-9 19688-66-5 19688-67-6 19688-68-7
19688-69-8 19688-70-1 19692-97-8 19692-98-9 19693-00-6
19778-71-3 19836-78-3 20177-86-0 20177-88-2 20912-17-8
20940-09-4 21017-68-5 21069-05-6 21427-63-4 21464-44-8
21667-32-3 21749-63-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thiazines, selenazines, tellurazines, thiaphosphinines, selenaphosphinines, and telluraphosphinines via cyclization, ring transformation and substituent modification)

IT 22360-86-7 22360-89-0 23080-22-0 23197-53-7 23416-54-8
23451-96-9 23474-98-8 23915-07-3 24034-06-8 24034-07-9
24034-08-0 24034-10-4 24034-11-5 24034-24-0 24300-70-7
25755-82-2 25755-85-5 25946-80-9 25946-91-2 25947-01-7
27467-92-1 27878-17-7 28731-96-6 29001-49-8 29263-94-3
29284-77-3 29681-98-9 29813-87-4 30321-99-4 30438-74-5
31230-83-8 31310-67-5 31689-21-1 31709-47-4 32616-46-9
33253-14-4 33253-16-6 33264-82-3 33358-35-9 33734-44-0
33816-65-8 34771-17-0 34964-70-0 35513-38-3 35565-15-2
35594-49-1 35634-95-8 35634-96-9 35721-17-6 36776-27-9
36995-92-3 37055-49-5 37128-01-1 37142-87-3 37755-67-2
37818-31-8 38240-21-0 39225-46-2 39775-49-0, Sodium selenide (Na2(Se2)) 39853-50-4 39853-52-6 39853-54-8 40578-41-4
40925-72-2 41018-73-9 42362-14-1 42598-83-4 42904-05-2
44641-43-2 49634-65-3 51676-74-5 52969-98-9 53033-86-6
53595-98-5 54398-36-6 54398-37-7 55043-33-9 55043-34-0
55243-35-1 55271-41-5 55271-42-6 55271-45-9 55271-49-3
55271-62-0 55271-67-5 55395-55-6 56553-71-0 56571-23-4
56571-24-5 56580-83-7 57045-02-0 57045-03-1 57045-04-2
57086-67-6 57279-20-6 59255-04-8 59412-21-4 61214-99-1
61955-26-8 62156-85-8 62225-57-4 62416-03-9 62442-86-8
62555-51-5 63052-61-9 63107-77-7 63350-97-0 64127-41-9
65576-76-3 65576-77-4 66155-38-2 66155-41-7 66155-42-8
66252-21-9 66505-26-8 67633-97-0 68301-19-9 68723-65-9
70350-99-1 70377-05-8, 1H-Carbazole-1,4(9H)-dione 70448-26-9
72168-03-7 72418-78-1 72701-23-6 72701-24-7 72701-25-8
72726-02-4 72889-09-9 73153-65-8 73931-64-3 74502-68-4
74502-69-5 74675-54-0 74675-57-3 74834-86-9 74834-87-0
74834-88-1 74834-89-2 74834-90-5 74834-91-6 75151-05-2
75482-50-7 76148-93-1 76293-50-0 76462-17-4 77708-93-1
78237-04-4 78742-16-2 79108-63-7 79108-64-8 79108-65-9
79108-66-0 79108-67-1 79226-40-7 79226-41-8 79226-42-9
79229-14-4 80814-74-0 81483-21-8 82195-11-7 82195-13-9
82722-75-6 85834-38-4 86109-81-1 87000-15-5 87613-26-1
87613-27-2 90252-61-2 90252-73-6 90319-52-1 90562-45-1
90712-75-7 90845-01-5 91331-49-6 91777-05-8 91778-96-0
91902-18-0 92498-19-6 93681-55-1 93863-95-7 93933-49-4
95277-50-2 95476-13-4 97355-13-0 98434-32-3 99970-59-9
100067-24-1 100067-26-3 100067-27-4 100559-85-1
101274-51-5 102029-44-7 104000-58-0 104054-10-6
105790-02-1 105903-47-7 105971-18-4 107325-87-1
107325-88-2 107325-89-3 107325-90-6 107522-19-0
107776-00-1 107943-81-7 108046-77-1 108284-88-4
108582-69-0 109188-90-1 112664-88-7 112664-89-8
116089-35-1 116089-36-2 118632-04-5 118632-05-6
123559-74-0 124548-14-7 126764-57-6 131105-89-0
131352-70-0 132806-57-6 133131-18-7 135939-43-4
136209-69-3 136209-71-7 136209-86-4 143674-47-9
143738-94-7 146630-74-2 146630-75-3 146630-76-4
146630-77-5 146630-78-6 146630-79-7 148728-48-7
149468-11-1 167872-29-9 167872-32-4 177421-58-8
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of thiazines, selenazines, tellurazines, thiaphosphinines, selenaphosphinines, and telluraphosphinines via cyclization, ring transformation and substituent modification)

IT 177421-59-9 225794-00-3 225937-33-7 498583-09-8
498583-10-1 721925-29-7 785727-27-7 823801-72-5
823801-75-8 823801-76-9 823801-79-2 823801-80-5
823801-81-6 823801-83-8 823801-84-9 823801-85-0
823801-88-3 823801-90-7 823801-92-9 823801-94-1
823801-98-5 823802-08-0 823802-11-5 823802-13-7
823802-21-7 823802-22-8 823802-23-9 823802-26-2
823802-28-4 823802-30-8 823802-31-9 823802-32-0
823802-34-2 823802-35-3 823802-36-4 823802-37-5
823802-39-7 823802-41-1 823802-45-5 823802-51-3
823802-52-4 824945-15-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thiazines, selenazines, tellurazines, thiaphosphinines, selenaphosphinines, and telluraphosphinines via cyclization, ring transformation and substituent modification)

IT 92-84-2P, 10H-Phenothiazine 222-06-0P, 8H-Dinaphtho[2,3-c:2',3'-h]phenothiazine 224-72-6P, 7H-Dibenzo[c,h]phenothiazine 581-30-6P, 3H-Phenothiazin-3-one 1207-72-3P 1927-44-2P, 10H-Phenothiazin-3-ol 5325-20-2P, 2H-1,4-Benzothiazin-3(4H)-one 6374-96-5P 7190-12-7P 7190-13-8P 7196-88-5P 7625-01-6P 10128-63-9P 14118-06-0P 19221-12-6P 21201-23-0P 32616-44-7P 38533-19-6P 43035-11-6P 49702-24-1P 57218-31-2P 61189-19-3P 61955-27-9P 65020-14-6P 66234-03-5P 66234-04-6P 70678-53-4P 78617-11-5P, 10H-Phenothiazine-3,7-diol 85834-39-5P 87216-45-3P 102929-10-2P 111385-12-7P 136209-73-9P 136209-74-0P 136209-77-3P 136209-79-5P 145223-87-6P 145223-88-7P 225794-01-4P 331457-04-6P 737706-55-7P 823801-65-6P 823801-66-7P 823801-70-3P 823801-71-4P 823801-97-4P 823802-15-9P 823802-20-6P 823802-48-8P 823802-50-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of thiazines, selenazines, tellurazines, thiaphosphinines, selenaphosphinines, and telluraphosphinines via cyclization, ring transformation and substituent modification)

IT 92-30-8P 92-39-7P 95-55-6P 225-83-2P, 12H-Benzo[a]phenothiazine 258-17-3P, 11H-Quinoxalino[2,3-b][1,4]benzothiazine 258-74-2P, Triphenodithiazine 261-90-5P, 5H-Pyrido[3,4-b][1,4]benzothiazine 261-96-1P, 1H-Pyrido[3,2-b][1,4]benzothiazine 262-05-5P, 10H-Phenoselenazine 262-09-9P, 10H-Phenotellurazine 343-20-4P 343-21-5P 394-22-9P 397-50-2P 397-51-3P 397-58-0P 739-83-3P 792-70-1P 849-73-0P 1198-55-6P 1207-98-3P 1207-99-4P 1222-54-4P 1430-62-2P 1576-70-1P 1583-50-2P 1628-29-1P 1628-77-9P 1730-44-5P 1730-46-7P 1747-87-1P 1747-90-6P 1771-18-2P 1771-19-3P 1771-22-8P 1910-85-6P 1918-37-2P, 10H-Phenothiazine-1-carboxaldehyde 2002-32-6P 2031-31-4P 2469-30-9P 2505-64-8P 3568-81-8P 3713-33-5P, 10H-Pyridazino[4,5-b][1,4]benzothiazine 3939-47-7P 4020-30-8P 4182-55-2P, 10H-Phenothiazine-1-carboxylic acid 4614-20-4P 4614-25-9P 4940-95-8P 5828-42-2P 5828-51-3P 6270-74-2P 6314-36-9P 6314-37-0P 6486-69-7P 7190-18-3P 7190-19-4P 7190-20-7P 7190-74-1P 7269-43-4P 7643-08-5P 7678-79-7P 10002-69-4P 10114-37-1P, 6,13(7H,14H)-Triphenodithiazinedione 10425-68-0P 10425-69-1P 13623-26-2P 13623-27-3P 13677-01-5P 13677-04-8P 13677-38-8P, 4H-1,4-Benzothiazine-3-carboxylic acid 13891-13-9P 14191-98-1P 14393-66-9P 14393-67-0P 14782-61-7P 17052-86-7P 17799-76-7P 17800-05-4P 17800-08-7P 17800-09-8P 17800-10-1P 17800-12-3P 17800-13-4P 17800-14-5P 18956-87-1P, 10H-Phenothiazine-10-carbonyl chloride 19262-22-7P 19693-01-7P

19693-02-8P 19693-04-0P 19693-05-1P 19693-07-3P
19693-08-4P 20177-87-1P 20177-89-3P 20196-21-8P,
3-Thiomorpholinone 20349-56-8P 20465-15-0P 20939-88-2P
20940-07-2P 20940-10-7P 21004-89-7P 21004-90-0P
21004-92-2P 21004-93-3P 21004-94-4P 21033-31-8P
22390-69-8P 22431-70-5P 22487-64-5P 22727-62-4P
22799-56-0P 23863-21-0P 24033-89-4P 24033-90-7P
24034-14-8P 25069-68-5P 25861-95-4P 25946-81-0P
25946-92-3P 25947-05-1P 25947-10-8P 26963-14-4P
29939-43-3P, Pyrrolo[3,2,1-kl]phenothiazine-1,2-dione
30065-86-2P 30188-29-5P 30188-31-9P 30188-32-0P
30196-30-6P 30322-00-0P 31121-37-6P 31123-52-1P
31645-94-0P 32616-45-8P 32616-49-2P 32616-50-5P
32616-51-6P 32616-52-7P 32616-53-8P 32616-54-9P
32616-55-0P 32616-56-1P 32656-78-3P 33209-89-1P
33209-90-4P 33209-92-6P 33209-94-8P 33209-95-9P
35461-38-2P 35594-41-3P 35594-42-4P 35594-45-7P
35594-50-4P 35986-23-3P 36850-44-9P 37893-32-6P
38027-80-4P 39853-56-0P 39853-58-2P 39853-60-6P
39974-37-3P, 4H-1,4-Benzothiazine-2-carboxylic acid 39974-39-5P
42362-24-3P 49600-27-3P 50346-34-4P 50346-35-5P
51568-37-7P, 1H-Pyrrolo[2,1-c][1,4]thiazine 51571-54-1P
51571-58-5P 51997-47-8P, 10H-Phenothiazin-4-ol 52174-39-7P
53184-19-3P 54913-29-0P 55043-20-4P 55043-52-2P
55043-53-3P 55271-43-7P 55271-44-8P 55271-55-1P
55271-61-9P 55271-63-1P 55271-64-2P 55271-66-4P
55271-68-6P 55271-69-7P 55271-70-0P 55395-49-8P
55601-85-9P 56553-67-4P 57044-87-8P 57044-88-9P
57044-89-0P 57044-90-3P 57044-91-4P 57044-92-5P
57044-93-6P 57044-94-7P 57044-95-8P 57044-96-9P
57044-97-0P 57044-98-1P 57044-99-2P 57086-66-5P
57086-98-3P 57218-30-1P 57901-81-2P 59389-74-1P
60290-49-5P 61174-11-6P 62236-14-0P 62236-15-1P
62442-87-9P 63018-01-9P 63042-53-5P 63052-59-5P
63086-79-3P 63137-49-5P 65242-80-0P, 2H-1,4-Benzothiazin-3-
amine 65325-58-8P, 5H-Quino[3,2-b][1,4]benzotellurazine
65576-72-9P 65576-73-0P 66155-32-6P 66155-34-8P
66155-36-0P 66155-37-1P 66155-46-2P 66234-07-9P
66234-08-0P 66234-09-1P 66234-12-6P 66234-13-7P
66234-14-8P 66234-15-9P 66234-18-2P 66252-22-0P
66252-23-1P 66252-24-2P 66505-27-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of thiazines, selenazines, tellurazines,
thiaphosphinines, selenaphosphinines, and telluraphosphinines
via cyclization, ring transformation and substituent
modification)

IT 66820-96-0P 67155-00-4P 67236-71-9P 68093-91-4P
68432-33-7P 69520-89-4P 70351-02-9P 70351-75-6P
70448-28-1P 70753-49-0P 70801-58-0P 72429-43-7P
72701-20-3P 72701-21-4P 72701-22-5P 73866-83-8P
74396-45-5P 74396-46-6P 74396-47-7P 74396-49-9P
74396-52-4P 74675-53-9P 74834-92-7P 74834-93-8P
74834-94-9P 74834-95-0P 74834-96-1P 74834-97-2P
75469-02-2P 75908-14-4P 76148-56-6P 76148-62-4P
76148-70-4P 76148-74-8P 76148-77-1P 76293-53-3P
76462-11-8P 76462-13-0P 76462-14-1P 76462-15-2P
76462-16-3P 77296-07-2P 77296-09-4P 77296-12-9P
77296-13-0P 77306-76-4P 77708-96-4P 77708-97-5P
79108-69-3P 79226-43-0P 79226-44-1P 79226-45-2P
79226-46-3P 79246-66-5P 80089-97-0P, Naphtho[1,8-
ab]phenothiazin-7(13H)-one 82191-17-1P 82193-94-0P 82619-80-
5P 82722-78-9P 83170-53-0P 83170-55-2P 83170-56-3P
83170-57-4P 83175-97-7P 83838-27-1P 84261-26-7P
84261-27-8P 84291-47-4P 84609-64-3P 85834-19-1P
86011-72-5P 86011-77-0P 86333-17-7P 87021-63-4P
87021-66-7P 87021-71-4P 87021-72-5P 87613-20-5P
87613-21-6P 87613-22-7P 87613-23-8P 88048-57-1P

88048-58-2P 90712-79-1P 91019-90-8P 92192-93-3P
92978-99-9P 92979-00-5P 94911-39-4P 95081-20-2P
95081-26-8P 95468-02-3P 95476-30-5P 95553-77-8P
96973-30-7P 96988-53-3P 97018-10-5P 98123-26-3P
98434-22-1P 99060-26-1P 99071-97-3P 99803-08-4P
100559-81-7P 101094-79-5P 101097-00-1P 101423-14-7P
102017-34-5P 102025-75-2P 102174-67-4P 102749-64-4P
103872-08-8P 104505-72-8P 104505-73-9P 104970-21-0P
106837-71-2P 107209-06-3P 107209-07-4P 107325-93-9P
107325-94-0P 107325-95-1P 107325-96-2P 107377-85-5P
108046-86-2P 108046-87-3P 109363-81-7P 109599-14-6P
111588-36-4P 111680-48-9P 111969-29-0P 115879-37-3P
115910-28-6P 115910-29-7P 115910-30-0P 115929-66-3P
116089-34-0P 116489-67-9P 116966-45-1P 116966-46-2P
116992-21-3P 116992-27-9P 116992-29-1P 116992-31-5P
116992-32-6P 116992-33-7P 116992-34-8P 117374-97-7P
117504-05-9P 118110-32-0P 118110-33-1P 118110-35-3P
118137-60-3P 118632-09-0P 118657-03-7P 123559-75-1P
123794-77-4P 127630-32-4P 128462-38-4P 128609-02-9P
131409-73-9P 132857-52-4P 135517-91-8P 135517-96-3P
135939-44-5P 135939-45-6P 136209-80-8P 136209-81-9P
136209-83-1P 136209-85-3P 137063-71-9P 137411-19-9P
137411-52-0P 137411-53-1P 137411-55-3P 137482-42-9P
139262-39-8P 145223-90-1P 145223-91-2P 145223-96-7P
146630-80-0P 146630-81-1P 146630-82-2P 146630-83-3P
146630-84-4P 146630-85-5P 146630-86-6P 146630-87-7P
146630-88-8P 147645-60-1P 148148-76-9P 148148-77-0P
150330-86-2P, Indolo[3,2-a]phenothiazin-7(8H)-one 151080-14-7P
151080-15-8P 151080-16-9P 151080-19-2P 151080-22-7P
151080-23-8P 151080-24-9P 151080-25-0P 151080-28-3P
151080-31-8P 151080-32-9P 165114-65-8P 173416-89-2P
176383-00-9P 177421-68-0P 177421-69-1P 177421-72-6P
181712-49-2P 186838-87-9P 190272-22-1P 203868-45-5P
212916-15-9P 212916-16-0P 212916-17-1P 212916-18-2P
212916-19-3P 221641-24-3P 221641-34-5P 225794-03-6P
225794-04-7P 286850-64-4P 302967-65-3P 339565-90-1P
339996-70-2P 342402-55-5P 342402-57-7P 347377-18-8P
348120-81-0P, 2H-1,4-Benzoselenazin-3(4H)-one 353255-89-7P
500902-00-1P 501001-62-3P 501001-63-4P 633700-94-4P
793608-01-2P 823801-67-8P 823801-68-9P 823801-69-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of thiazines, selenazines, tellurazines,
thiaphosphinines, selenaphosphinines, and telluraphosphinines
via cyclization, ring transformation and substituent
modification)

IT 823801-73-6P 823801-74-7P 823801-77-0P 823801-78-1P
823801-82-7P 823801-86-1P 823801-87-2P 823801-89-4P
823801-91-8P 823801-93-0P 823801-95-2P 823801-96-3P
823802-00-2P 823802-01-3P 823802-02-4P 823802-03-5P
823802-04-6P 823802-05-7P 823802-06-8P 823802-07-9P
823802-09-1P 823802-10-4P 823802-12-6P 823802-14-8P
823802-16-0P 823802-17-1P 823802-18-2P 823802-19-3P
823802-24-0P 823802-25-1P 823802-27-3P 823802-29-5P
823802-33-1P 823802-38-6P 823802-40-0P 823802-42-2P
823802-43-3P 823802-46-6P 823802-47-7P 823802-49-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of thiazines, selenazines, tellurazines,
thiaphosphinines, selenaphosphinines, and telluraphosphinines
via cyclization, ring transformation and substituent
modification)

REFERENCE COUNT: 391 THERE ARE 391 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L107 ANSWER 37 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:5928 HCAPLUS Full-text
DOCUMENT NUMBER: 138:73271

TITLE: Preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine and heterocyclediamine derivatives as inhibitors of activated blood coagulation factor X (factor Xa)

INVENTOR(S): Ohta, Toshiharu; Komoriya, Satoshi; Yoshino, Toshiharu; Uoto, Kouichi; Nakamoto, Yumi; Naito, Hiroyuki; Mochizuki, Akiyoshi; Nagata, Tsutomu; Kanno, Hideyuki; Haginoya, Noriyasu; Yoshikawa, Kenji; Nagamochi, Masatoshi; Kobayashi, Syozo; Ono, Makoto

PATENT ASSIGNEE(S): Daiichi Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 788 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 4

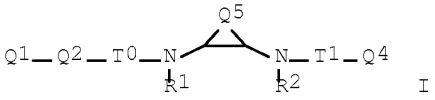
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000657	A1	20030103	WO 2002-JP2683	20020320
			<--	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002242954	A1	20030108	AU 2002-242954	20020320
			<--	
CA 2451605	A1	20030103	CA 2002-2451605	20020620
			<--	
WO 2003000680	A1	20030103	WO 2002-JP6141	20020620
			<--	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002346300	A1	20030108	AU 2002-346300	20020620
			<--	
AU 2002346300	B2	20071101		
EP 1405852	A1	20040407	EP 2002-743653	20020620

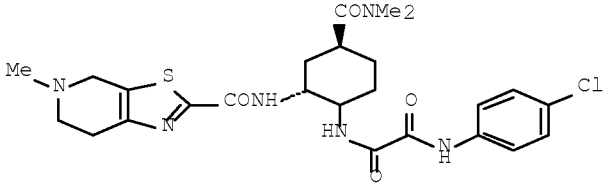
<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
BR 2002010541 A 20040622 BR 2002-10541
2002
0620
<--
CN 1826333 A 20060830 CN 2002-816040
2002
0620
<--
CA 2456841 A1 20030227 CA 2002-2456841
2002
0808
<--
WO 2003016302 A1 20030227 WO 2002-JP8119
2002
0808
<--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE,
SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT,
BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2002328596 A1 20030303 AU 2002-328596
2002
0808
<--
AU 2002328596 B2 20070920
EP 1415992 A1 20040506 EP 2002-762760
2002
0808
<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
EE, SK
BR 2002011565 A 20040629 BR 2002-11565
2002
0808
<--
CN 1894238 A 20070110 CN 2002-819652
2002
0808
<--
ZA 2003009866 A 20041220 ZA 2003-9866
2003
0130
<--
NO 2003005634 A 20040218 NO 2003-5634
2003
1217
<--
ZA 2004000926 A 20050204 ZA 2004-926
2004
0204
<--
NO 2004000557 A 20040402 NO 2004-557
2004
0206
<--
MX 2004PA01272 A 20040527 MX 2004-PA1272

				2004 0209 <--
US 2005245565	A1	20051103	US 2004-481629	2004 0601 <--
US 2005119486	A1	20050602	US 2004-481262	2004 0714 <--
PRIORITY APPLN. INFO.:			JP 2001-187105 A	2001 0620 <--
			JP 2001-243046 A	2001 0809 <--
			JP 2001-311808 A	2001 1009 <--
			JP 2001-398708 A	2001 1228 <--
			WO 2002-JP2683 W	2002 0320 <--
			WO 2002-JP6141 W	2002 0620 <--
			WO 2002-JP6441 A	2002 0620 <--
			WO 2002-JP8119 W	2002 0808 <--

OTHER SOURCE(S): MARPAT 138:73271
ED Entered STN: 05 Jan 2003
GI



I



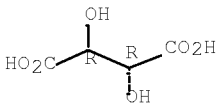
III

AB Diamine compds. represented by the following general formula [I; wherein R1, R2 = H, HO, alkoxy; Q1 = each (un)substituted and (un)saturated 5 or 6-membered cyclic hydrocarbyl, 5 to 7-membered heterocyclyl, or bicyclic or tricyclic fused hydrocarbyl or heterocyclyl; Q2 = a single bond, (un)substituted and (un)saturated bivalent cyclic hydrocarbon, 5 to 7-membered heterocycle, or bicyclic or tricyclic fused hydrocarbon or heterocyclic group; Q5 = C1-8 alkylene, C2-8 alkenylene, (CH2)mCH2-A-CH2(CH2)n (wherein m, n = an integer of 0-3); A = O, N, S, SO, SO2, NH, ONH, NHNH, SNH, SONH, SO2NH; R3 and R4 are groups substituted on C, N, or S in the ring containing Q5 and are selected from H,HO, alkyl, alkenyl, alkynyl, halo, haloalkyl, cyano, cyanoalkyl, NH2, aminoalkyl, N-alkylaminoalkyl, N,N-dialkylaminoalkyl, acyl, acylalkyl, (un)substituted acylaminoalkyl, etc.; Q4 = each (un)substituted aryl, arylalkenyl, arylalkynyl, heteroaryl, or heteroarylalkenyl, each (un)saturated and (un)saturated bicyclic or tricyclic fused hydrocarbyl or heterocyclyl; T0 = CO, thiocarbonyl; T1 = CO, SO2, CO-CO, N-(un)substituted CO-NR, C(:S)-CO-NR, CO-C(S)-NR, C(S)-C(:S)-NR (wherein R = H,HO, alkyl, alkoxy), etc.], salts thereof, solvates of the same, or N-oxides of the same are prepared The diamine compds. include N,N'-bis(heterocyclic acyl)-1,2-cyclopropanediamine, -1,2-cyclobutanediamine, 1,2-cyclopentanediamine, -1,2-cyclohexanediamine, 1,2-cycloheptanediamine, -1,2-cyclooctanediamine, -tetrahydro-3,4-furandiamine, -3,4-pyrrolidinediamine, -3,4-piperidinediamine, -tetrahydro-6-oxo-3,4-pyrandiamine, and -tetrahydro-3,4-thiopyrandiamine-1,1-dioxide derivs. These compds. are blood coagulation inhibitors and useful as preventives and/or remedies for thrombus or embolism including brain infarction, cerebral embolism, cardiac infarction, angina, pulmonary infarction, pulmonary embolism, Buerger's disease, deep venous thrombosis, disseminated intravascular coagulation syndrome, thrombosis following artificial flap/joint replacement, thrombosis and re-obstruction following blood flow reconstruction, systemic inflammatory reaction syndrome (SIRS), multiple organ dysfunction syndrome (MODS), thrombosis during external circulation or blood coagulation during blood collection. Thus, 288 mg 2-(4-chloroanilino)-2-oxoacetic acid Et ester was dissolved in 8.0 mL THF, treated with 46 mg LiOH and 1.0 mL H2O, stirred at room temperature for 2 h, concentrated in dryness under reduced pressure to give 292 mg crude 2-(4-chloroanilino)-2-oxoacetic acid lithium salt (II). II and N-[(1R,2S,5S)-2-amino-5- [(dimethylamino)carbonyl]cyclohexyl]-5-methyl-4,5,6,7-tetrahydrothiazolo[5,4-c]pyridine-2-carboxamide (preparation given) were dissolved in 15 mL DMF and stirred with 164 mg 1-hydroxybenzotriazole hydrate and 251 mg 1-ethyl-3-(3- dimethylaminopropyl)carbodiimide hydrochloride at room temperature for 64.5 h to give a cyclohexanediamine derivative (III). III.HCl showed IC50 of 1.2 nM against human factor Xa.

IT 87-69-4, L-Tartaric acid, reactions 7447-39-4, Copper(II) chloride, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine and heterocyclediamine derivs. as factor Xa and blood coagulation inhibitors for prevention and treatment of thrombus and embolism)

RN 87-69-4 HCAPLUS
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)- (CA INDEX NAME)

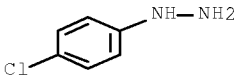
Absolute stereochemistry.



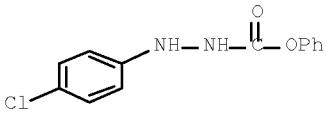
RN 7447-39-4 HCAPLUS
CN Copper chloride (CuCl2) (CA INDEX NAME)

IT 1073-69-4P, (4-Chlorophenyl)hydrazine 480452-24-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine and heterocyclediamine derivs. as factor Xa and blood coagulation inhibitors for prevention and treatment of thrombus and embolism)

RN 1073-69-4 HCAPLUS
CN Hydrazine, (4-chlorophenyl)- (CA INDEX NAME)



RN 480452-24-2 HCAPLUS
CN Hydrazinecarboxylic acid, 2-(4-chlorophenyl)-, phenyl ester (CA INDEX NAME)



IC ICM C07D209-42
ICS C07D213-75; C07D217-26; C07D401-12; C07D401-14; C07D409-12; C07D417-12; C07D417-14; C07D487-04; C07D495-04; C07D498-04; C07D513-04; C07D513-14; C07D519-00; C07C233-56; C07C237-24; A61K031-428; A61K031-429; A61K031-437; A61K031-44

CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

ST heterocyclic acyl cycloalkanediamine heterocyclediamine prepn inhibitor factor Xa; activated blood coagulation factor X inhibitor thiazolopyridinylcarbonylcyclohexanediamine; cyclopropanediamine prepn inhibitor factor Xa; cyclobutanediamine prepn inhibitor factor Xa; cyclopentanediamine prepn inhibitor factor Xa; cyclohexanediamine prepn inhibitor factor Xa; cycloheptanediamine prepn inhibitor factor Xa; cyclooctanediamine prepn inhibitor factor Xa; tetrahydrofurandiamine prepn inhibitor factor Xa; pyrrolidinediamine prepn inhibitor factor Xa; piperidinediamine prepn inhibitor factor Xa; tetrahydropyranonediamine prepn inhibitor factor Xa; tetrahydrothiopyrandiamine dioxide prepn inhibitor factor Xa; blood coagulation inhibitor prepn heterocyclic acyl cycloalkanediamine prepn; thrombus embolism prevention treatment heterocyclic acyl heterocyclediamine prepn; brain infarction prevention treatment cycloalkanediamine heterocyclediamine prepn; cerebral embolism prevention treatment cycloalkanediamine heterocyclediamine prepn; cardiac infarction prevention treatment cycloalkanediamine heterocyclediamine prepn; angina prevention treatment cycloalkanediamine heterocyclediamine prepn; pulmonary infarction embolism prevention treatment cycloalkanediamine heterocyclediamine prepn; Buerger disease prevention treatment cycloalkanediamine heterocyclediamine prepn; deep venous thrombosis prevention treatment

cycloalkanediamine heterocyclediamine prepn;
disseminated intravascular coagulation syndrome prevention
treatment cycloalkanediamine heterocyclediamine prepn;
systemic inflammatory reaction syndrome SIRS prevention treatment
cycloalkanediamine prepn; multiple organ dysfunction
syndrome MODS prevention treatment cycloalkanediamine
prepn

IT Multiple organ failure
((MODS); preparation of N,N'-bis(heterocyclic
acyl)cycloalkanediamine and heterocyclediamine derivs. as
factor Xa and blood coagulation inhibitors for prevention and
treatment of thrombus and embolism)

IT Heart, disease
(angina pectoris; preparation of N,N'-bis(heterocyclic
acyl)cycloalkanediamine and heterocyclediamine derivs. as
factor Xa and blood coagulation inhibitors for prevention and
treatment of thrombus and embolism)

IT Brain, disease
(cerebrovascular; preparation of N,N'-bis(heterocyclic
acyl)cycloalkanediamine and heterocyclediamine derivs. as
factor Xa and blood coagulation inhibitors for prevention and
treatment of thrombus and embolism)

IT Blood coagulation disorders
(disseminated intravascular coagulation, syndrome;
preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine
and heterocyclediamine derivs. as factor Xa and blood
coagulation inhibitors for prevention and treatment of thrombus
and embolism)

IT Lung, disease
(embolism; preparation of N,N'-bis(heterocyclic
acyl)cycloalkanediamine and heterocyclediamine derivs. as
factor Xa and blood coagulation inhibitors for prevention and
treatment of thrombus and embolism)

IT Brain, disease
Heart, disease
Lung, disease
(infarction; preparation of N,N'-bis(heterocyclic
acyl)cycloalkanediamine and heterocyclediamine derivs. as
factor Xa and blood coagulation inhibitors for prevention and
treatment of thrombus and embolism)

IT Anticoagulants
Blood coagulation
Embolism
Human
Thrombus
(preparation of N,N'-bis(heterocyclic
acyl)cycloalkanediamine and heterocyclediamine derivs. as
factor Xa and blood coagulation inhibitors for prevention and
treatment of thrombus and embolism)

IT Embolism
(pulmonary; preparation of N,N'-bis(heterocyclic
acyl)cycloalkanediamine and heterocyclediamine derivs. as
factor Xa and blood coagulation inhibitors for prevention and
treatment of thrombus and embolism)

IT Inflammation
(systemic inflammatory reaction syndrome (SIRS); prepn
. of N,N'-bis(heterocyclic acyl)cycloalkanediamine and
heterocyclediamine derivs. as factor Xa and blood coagulation
inhibitors for prevention and treatment of thrombus and
embolism)

IT Thrombosis
(thromboangiitis obliterans; preparation of
N,N'-bis(heterocyclic acyl)cycloalkanediamine and
heterocyclediamine derivs. as factor Xa and blood coagulation
inhibitors for prevention and treatment of thrombus and
embolism)

IT Thrombosis

(venous; preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine and heterocyclediamine derivs. as factor Xa and blood coagulation inhibitors for prevention and treatment of thrombus and embolism)

IT 9002-05-5, Activated blood coagulation factor X
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(human; preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine and heterocyclediamine derivs. as factor Xa and blood coagulation inhibitors for prevention and treatment of thrombus and embolism)

IT 365995-56-8P 365995-57-9P 480447-17-4P 480447-18-5P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine and heterocyclediamine derivs. as factor Xa and blood coagulation inhibitors for prevention and treatment of thrombus and embolism)

IT 365993-86-8P 365993-87-9P 365993-88-0P 365993-90-4P
365993-91-5P 365993-92-6P 365993-95-9P 365993-96-0P
365993-97-1P 365993-98-2P 365994-00-9P 365994-04-3P
365994-06-5P 365994-07-6P 365994-09-8P 365994-10-1P
365994-11-2P 365994-13-4P 365994-14-5P 365994-15-6P
365994-16-7P 365994-17-8P 365994-28-1P 365994-29-2P
365994-32-7P 365994-36-1P 365994-75-8P 365994-78-1P
365994-80-5P 365994-82-7P 365994-86-1P 365994-87-2P
365994-89-4P 365994-91-8P 365994-92-9P 365994-93-0P
365994-94-1P 365994-95-2P 365994-96-3P 365994-97-4P
365994-98-5P 365994-99-6P 365995-00-2P 365995-02-4P
365995-05-7P 365995-08-0P 365995-09-1P 365995-11-5P
365995-19-3P 365995-20-6P 365995-23-9P 365995-24-0P
365995-34-2P 365995-36-4P 365995-41-1P 365995-42-2P
365995-43-3P 365995-44-4P 365995-48-8P 365995-53-5P
365995-58-0P 365995-59-1P 365995-60-4P 365995-61-5P
365995-62-6P 365995-63-7P 365995-64-8P 365995-70-6P
365995-86-4P 365995-88-6P 365995-91-1P 365995-92-2P
365995-93-3P 365995-94-4P 365995-95-5P 365995-96-6P
365995-97-7P 365995-98-8P 365995-99-9P 365996-00-5P
365996-01-6P 365996-02-7P 365996-03-8P 480447-00-5P
480447-01-6P 480447-02-7P 480447-03-8P 480447-04-9P
480447-05-0P 480447-06-1P 480447-07-2P 480447-08-3P
480447-09-4P 480447-10-7P 480447-11-8P 480447-12-9P
480447-13-0P 480447-14-1P 480447-15-2P 480447-16-3P
480447-19-6P 480447-20-9P 480447-21-0P 480447-22-1P
480447-23-2P 480447-24-3P 480447-25-4P 480447-27-6P
480447-29-8P 480447-30-1P 480447-31-2P 480447-33-4P
480447-35-6P 480447-37-8P 480447-38-9P 480447-39-0P
480447-41-4P 480447-43-6P 480447-45-8P 480447-46-9P
480447-47-0P 480447-48-1P 480447-49-2P 480447-50-5P
480447-51-6P 480447-52-7P 480447-53-8P 480447-54-9P
480447-55-0P 480447-56-1P 480447-57-2P 480447-58-3P
480447-59-4P 480447-60-7P 480447-61-8P 480447-62-9P
480447-63-0P 480447-64-1P 480447-65-2P 480447-66-3P
480447-67-4P 480447-68-5P 480447-69-6P 480447-70-9P
480447-71-0P 480447-72-1P 480447-73-2P 480447-74-3P
480447-75-4P 480447-76-5P 480447-77-6P 480447-78-7P
480447-79-8P 480447-80-1P 480447-81-2P 480447-82-3P
480447-83-4P 480447-84-5P 480447-85-6P 480447-86-7P
480447-87-8P 480447-88-9P 480447-89-0P 480447-90-3P
480447-91-4P 480447-92-5P 480447-93-6P 480447-94-7P
480447-95-8P 480447-96-9P 480447-97-0P 480447-98-1P
480447-99-2P 480448-00-8P 480448-01-9P 480448-02-0P
480448-03-1P 480448-04-2P 480448-05-3P 480448-06-4P
480448-07-5P 480448-08-6P 480448-09-7P 480448-10-0P
480448-11-1P 480448-12-2P 480448-13-3P 480448-14-4P
480448-15-5P 480448-16-6P 480448-17-7P 480448-18-8P
480448-19-9P 480448-20-2P 480448-21-3P 480448-22-4P

480448-23-5P 480448-24-6P 480448-25-7P 480448-26-8P
480448-27-9P 480448-28-0P 480448-29-1P 480448-30-4P
480448-31-5P 480448-32-6P 480448-33-7P 480448-34-8P
480448-35-9P 480448-36-0P 480448-37-1P 480448-38-2P
480448-39-3P 480448-40-6P 480448-41-7P 480448-42-8P
480448-43-9P 480448-44-0P 480448-45-1P 480448-46-2P
480448-47-3P 480448-48-4P 480448-49-5P 480448-50-8P
480448-51-9P 480448-52-0P 480448-53-1P 480448-54-2P
480448-55-3P 480448-56-4P 480448-57-5P 480448-58-6P
480448-59-7P 480448-60-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine and heterocyclediamine derivs. as factor Xa and blood coagulation inhibitors for prevention and treatment of thrombus and embolism)

IT 480448-62-2P 480448-64-4P 480448-66-6P 480448-67-7P
480448-69-9P 480448-71-3P 480448-73-5P 480448-75-7P
480448-77-9P 480448-79-1P 480448-81-5P 480448-83-7P
480448-85-9P 480448-87-1P 480448-89-3P 480448-91-7P
480448-93-9P 480448-94-0P 480448-95-1P 480448-96-2P
480448-97-3P 480448-98-4P 480448-99-5P 480449-00-1P
480449-01-2P 480449-02-3P 480449-04-5P 480449-05-6P
480449-07-8P 480449-08-9P 480449-09-0P 480449-10-3P
480449-11-4P 480449-12-5P 480449-13-6P 480449-14-7P
480449-15-8P 480449-16-9P 480449-17-0P 480449-18-1P
480449-19-2P 480449-20-5P 480449-21-6P 480449-22-7P
480449-23-8P 480449-24-9P 480449-25-0P 480449-26-1P
480449-27-2P 480449-28-3P 480449-29-4P 480449-30-7P
480449-31-8P 480449-32-9P 480449-33-0P 480449-34-1P
480449-35-2P 480449-36-3P 480449-37-4P 480449-38-5P
480449-39-6P 480449-40-9P 480449-41-0P 480449-42-1P
480449-43-2P 480449-44-3P 480449-45-4P 480449-46-5P
480449-47-6P 480449-48-7P 480449-49-8P 480449-50-1P
480449-51-2P 480449-52-3P 480449-53-4P 480449-54-5P
480449-55-6P 480449-56-7P 480449-57-8P 480449-58-9P
480449-59-0P 480449-60-3P 480449-61-4P 480449-62-5P
480449-63-6P 480449-64-7P 480449-65-8P 480449-66-9P
480449-67-0P 480449-68-1P 480449-69-2P 480449-70-5P
480449-71-6P 480995-97-9P 480995-98-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine and heterocyclediamine derivs. as factor Xa and blood coagulation inhibitors for prevention and treatment of thrombus and embolism)

IT 50-00-0, Formaldehyde, reactions 57-14-7, N,N-Dimethylhydrazine 64-18-6, Formic acid, reactions 67-56-1, Methanol, reactions 67-64-1, Acetone, reactions 74-11-3, 4-Chlorobenzoic acid 74-88-4, Methyl iodide, reactions 74-89-5, Methylamine, reactions 75-03-6, Ethyl iodide 75-65-0, tert-Butanol, reactions 77-76-9, 2,2-Dimethoxypropane 79-03-8, Propionyl chloride 79-04-9, Chloroacetyl chloride 79-22-1, Methyl chloroformate 79-30-1, Isobutyryl chloride 79-44-7, N,N-Dimethylcarbamoyl chloride 85-41-6, Phthalimide 87-69-4, L-Tartaric acid, reactions 87-91-2, L-Tartaric acid diethyl ester 89-21-4, 4-Chloro-2-nitroanisole 93-61-8, N-Methylformanilide 95-54-5, 1,2-Benzenediamine, reactions 95-69-2, 4-Chloro-2-methylaniline 95-76-1, 3,4-Dichloroaniline 95-92-1, Diethyl oxalate 96-32-2, Methyl bromoacetate 98-10-2, Benzenesulfonamide 98-59-9, p-Toluenesulfonyl chloride 98-88-4, Benzoyl chloride 100-02-7, p-Nitrophenol, reactions 100-39-0, Benzyl bromide 100-44-7, Benzyl chloride, reactions 100-46-9, Benzylamine, reactions 102-09-0, Diphenyl carbonate 104-12-1, 4-Chlorophenyl isocyanate 104-88-1,

4-Chlorobenzaldehyde, reactions 105-36-2, Bromoacetic acid ethyl ester 105-37-3, Propionic acid ethyl ester 106-40-1, 4-Bromoaniline 106-47-8, 4-Chloroaniline, reactions 107-21-1, Ethylene glycol, reactions 107-30-2, Chloromethyl methyl ether 108-24-7, Acetic anhydride 108-42-9, 3-Chloroaniline 109-04-6, 2-Bromopyridine 109-65-9, 1-Bromobutane 109-90-0, Ethyl isocyanate 110-91-8, Morpholine, reactions 122-88-3, 4-Chlorophenoxyacetic acid 123-75-1, Pyrrolidine, reactions 124-38-9, Carbon dioxide, reactions 124-63-0, Methanesulfonyl chloride 124-68-5, 2-Amino-2-methyl-1-propanol 143-33-9, Sodium cyanide 149-73-5, Trimethyl orthoformate 306-37-6 348-36-7, 5-Fluoroindole-2-carboxylic acid ethyl ester 367-25-9, 2,4-Difluoroaniline 371-40-4, 4-Fluoroaniline 399-76-8, 5-Fluoroindole-2-carboxylic acid 407-25-0, Trifluoroacetic anhydride 420-04-2, Cyanamide 445-03-4, 4-Chloro-2-trifluoromethylaniline 462-08-8, 3-Aminopyridine 504-24-5, 4-Aminopyridine 506-59-2, Dimethylamine hydrochloride 535-11-5, 2-Bromopropionic acid ethyl ester 540-51-2, 2-Bromoethanol 541-41-3, Ethyl chloroformate 544-92-3, Copper(I) cyanide 554-00-7, 2,4-Dichloroaniline 557-66-4, Ethylamine hydrochloride 593-56-6, O-Methylhydroxylamine hydrochloride 612-57-7, 6-Chloroquinoline 617-35-6, Ethyl pyruvate 621-79-4 623-33-6, Glycine ethyl ester hydrochloride 628-12-6, 2-Methoxyethyl chloroformate 628-92-2, Cycloheptene 637-81-0, Azidoacetic acid ethyl ester 694-05-3, 1,2,3,6-Tetrahydropyridine 762-42-5, Acetylenedicarboxylic acid dimethyl ester 762-49-2, 2-Fluoroethyl bromide 765-30-0, Cyclopropylamine 814-75-5, 3-Bromo-2-butanone 917-54-4, Methyllithium 931-88-4, Cyclooctene 941-55-9, p-Toluenesulfonyl azide 1009-36-5, 2-Chloro-5-nitroanisole 1066-54-2, Trimethylsilylacetylene 1072-97-5, 2-Amino-5-bromopyridine 1072-98-6, 2-Amino-5-chloropyridine 1073-70-7, (4-Chlorophenyl)hydrazine hydrochloride 1120-87-2, 4-Bromopyridine 1121-22-8, (±)-trans-1,2-Cyclohexanediamine 1436-59-5, cis-1,2-Cyclohexanediamine 1450-74-4, 5'-Chloro-2'-hydroxyacetophenone 1609-86-5, tert-Butyl isocyanate 1779-49-3, Methyltriphenylphosphonium bromide 1816-92-8, Azidoacetic acid methyl ester 1906-57-6, 2-Ethoxy-2-oxoacetic acid potassium salt 2420-26-0, 4-Chloro-2-hydroxybenzaldehyde 2516-95-2, 5-Chloro-2-nitrobenzoic acid 3145-88-8, (±)-trans-1,2-Cyclopentanediamine 3282-30-2, Pivaloyl chloride 3581-91-7, 4,5-Dimethylthiazole 3863-11-4, 3,4-Difluoroaniline 4023-34-1, Cyclopropanecarbonyl chloride 4214-80-6, 5-Chloro-N-methyl-2-pyridineamine 4224-69-5, 2-(Bromomethyl)acrylic acid methyl ester 4358-64-9 4385-62-0, 4-(2-Pyridyl)benzoic acid 4524-93-0, Cyclopentanecarbonyl chloride 4755-77-5 4771-80-6, (±)-3-Cyclohexene-1-carboxylic acid 4792-67-0, 5-Chloroindole-2-carboxylic acid ethyl ester 5006-22-4, Cyclobutanecarbonyl chloride 5042-97-7, 6-Chloronaphthalene-2-carboxylic acid 5188-07-8, Sodium thiomethoxide 5202-85-7, 2-Amino-5-chlorobenzamide 5350-93-6, 5-Amino-2-chloropyridine 5428-89-7, 2-Amino-5-chloropyrimidine 5445-17-0, 2-Bromopropionic acid methyl ester 5469-69-2, 3-Amino-6-chloropyridazine 5470-11-1, Hydroxylamine hydrochloride 5527-95-7, 4-Chloro-3-fluorobenzaldehyde 5709-98-8, (1R)-3-Cyclohexene-1-carboxylic acid 6148-64-7, Malonic acid monoethyl ester potassium salt 6482-24-2, 2-Methoxyethyl bromide 6506-30-5, 2-[2-Amino-5-methoxycarbonyl-4-thiazolyl]acetic acid methyl ester 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 6914-71-2, 1,1-Cyclopropanedicarboxylic acid dimethyl ester 7065-46-5, tert-Butylacetyl chloride 7149-75-9, 4-Chloro-3-methylaniline 7254-19-5, 5-Bromoindole-2-carboxylic acid 7447-39-4, Copper(II) chloride, reactions 7677-24-9, Trimethylsilyl cyanide 7704-34-9, Sulfur, reactions 7789-45-9, Copper(II) bromide 10102-17-7, Sodium thiosulfate pentahydrate 10241-97-1,

5-Methylindole-2-carboxylic acid 10298-80-3,
4-Chloro-3-nitroanisole 10442-39-4, Tetrabutylammonium cyanide
13811-71-7, D-Tartaric acid diethyl ester 13831-31-7,
Acetoxyacetyl chloride 14002-80-3, 2,2-Dimethyl-3-
hydroxypropanoic acid methyl ester 14047-29-1,
4-Carboxyphenylboronic acid 14173-40-1 14235-81-5,
4-Ethynylaniline 14320-38-8, 3-Cyclopenten-1-ol 14337-43-0,
2-Chloro-2-hydroxyiminoacetic acid ethyl ester 14527-26-5
17994-25-1, 1-Hydroxy-1-cyclopropanecarboxylic acid 18107-18-1,
Trimethylsilyldiazomethane 19524-06-2, 4-Bromopyridine
hydrochloride 19914-92-2, (1R*,4R*,5R*)-4-Iodo-6-
oxabicyclo[3.2.1]octan-7-one 20345-61-3 21717-96-4,
2-Amino-5-fluoropyridine 23056-33-9, 2-Chloro-4-methyl-5-
nitropyridine 23761-23-1, 3-Oxocyclobutanecarboxylic acid
24065-33-6, 5-Chlorothiophene-2-carboxylic acid 25125-21-7,
4-Hydroxymethyl-1-cyclopentene 26018-73-5, 6-
Chlorobenzo[b]thiophene-2-carboxylic acid 26386-88-9,
Diphenylphosphoryl azide 26628-22-8, Sodium azide 29943-42-8,
Tetrahydro-4H-pyran-4-one 30525-89-4, Paraformaldehyde
32315-10-9, Triphosgene 33332-29-5, 2-Amino-5-chloropyrazine
36157-42-3, 5-Chlorothiophene-3-carboxylic acid 36239-09-5,
Malonic acid chloride monoethyl ester 36520-39-5, Azetidine
hydrochloride 37585-25-4, 4-Chloro-2-hydroxymethylaniline
38870-89-2, Methoxyacetyl chloride 39811-14-8,
5-Chlorobenzimidazole-2-carboxylic acid 40635-66-3,
2-Acetoxyisobutyryl chloride 41663-73-4, 2-Amino-5-
chlorothiazole 56146-83-9, (Methoxycarbonyl)methanesulfonyl
chloride 57946-56-2, 4-Chloro-2-fluoroaniline 58479-61-1,
tert-Butylchlorodiphenylsilane 58632-95-4, 2-(tert-
Butoxycarbonyloxyimino)-2-phenylacetonitrile 59850-77-0,
2-Amino-3-(4-fluorophenyl)propionic acid methyl ester
63466-89-7, cis-1,2-Cyclopropanediamine dihydrochloride
63806-71-3 67976-82-3 79099-07-3, 1-tert-Butoxycarbonyl-4-
piperidone 79247-96-4, 4,5-Dimethylthiazole-2-carboxylic acid
ethyl ester 85070-47-9, 1-(Bromomethyl)-3-chloro-2-fluorobenzene
87120-72-7, 4-Amino-1-(tert-butoxycarbonyl)piperidine 87219-29-2
87258-35-3, 2-Thioxoacetic acid ethyl ester 88887-87-0,
1-Methylcyclopropylamine hydrochloride 89424-04-4,
3-Chloro-4-oxo-1-piperidinecarboxylic acid ethyl ester
89711-08-0, 2-[(tert-Butoxycarbonyl)amino]acetaldehyde
93913-86-1, 1-(4-Pyridyl)piperidine-4-carboxylic acid
95715-87-0, (4R)-4-Formyl-2,2-dimethyl-1,3-oxazolidine-3-
carboxylic acid tert-butyl ester 101385-93-7 101930-07-8,
(3R)-1-Benzyl-3-hydroxypyrrolidine 102308-32-7, (4S)-4-
Formyl-2,2-dimethyl-1,3-oxazolidine-3-carboxylic acid
tert-butyl ester 105249-35-2, cis-4-Cyclohexene-1,2-diamine
dihydrochloride 111337-70-3 130433-68-0 136725-54-7,
(S)-3-Fluoropyrrolidine 139460-10-9, 3-(tert-
Butoxycarbonylamino)-4-mercaptopyridine 141764-85-4
149777-00-4, Tetrahydro-4H-pyran-4,4-dicarboxylic acid dimethyl
ester 159015-39-1, 2-Chloro-4,7-dihydro-5H-1,3-benzothiazol-6-
one 160141-86-6 165947-48-8, 5-tert-Butoxycarbonyl-4,5,6,7-
tetrahydrothieno[3,2-c]pyridine-2-carboxylic acid 169674-53-7
206662-95-5, 4,5-Bis(bromomethyl)thiazole 206991-46-0,
cis-1,2-Cyclobutanediamine dihydrochloride 249292-35-1
259808-25-8, 5-(4-Pyridyl)thiazole-2-carboxylic acid lithium salt
365997-39-3, (1S,3R,4S)-3-[(tert-Butoxycarbonyl)amino]-4-[[(5-
fluoroindol-2-yl)carbonyl]amino]cyclohexanecarboxylic acid ethyl
ester 480451-25-0 480452-46-8, 2-Chloro-5-oxo-4,5,6,7-
tetrahydrobenzo[d]thiazole 480452-57-1 480452-66-2,
6-tert-Butoxycarbonyl-5,7-dihydro-6H-pyrrolo[3,4-d]pyrimidine-2-
carboxylic acid lithium salt 480452-67-3, 2-[(Pyridin-4-
yl)amino]-2-oxoacetic acid lithium salt 480452-68-4,
2-[(Pyridin-3-yl)amino]-2-oxoacetic acid methyl ester
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of N,N'-bis(heterocyclic
acyl)cycloalkanediamine and heterocyclediamine derivs. as

factor Xa and blood coagulation inhibitors for prevention and treatment of thrombus and embolism)

IT 93-50-5P 273-70-1P, Thiazolo[5,4-c]pyridine 273-75-6P, Thiazolo[4,5-c]pyridine 351-04-2P 403-17-8P 456-39-3P 473-85-8P 624-78-2P, Ethylmethylamine 1073-69-4P, (4-Chlorophenyl)hydrazine 2521-89-3P 2881-63-2P 3240-10-6P 3289-75-6P 4385-76-6P 5006-45-1P 5337-03-1P 5397-14-8P 5465-90-7P, 2-(4-Chloroanilino)acetic acid 5708-19-0P 7545-52-0P 13120-37-1P, 2-(3,4-Dichloroanilino)-2-oxoacetic acid 13553-19-0P 15386-78-4P 15386-81-9P 15386-82-0P 15386-84-2P 17738-71-5P 24796-59-6P 25209-46-5P 25307-88-4P 27607-33-6P 36155-85-8P 38322-69-9P 40955-64-4P, 4-Methoxy-1-cyclopentene 43142-76-3P 43161-30-4P 45434-73-9P 52313-35-6P 56042-83-2P 58696-63-2P 59394-30-8P 59676-22-1P 64241-78-7P 66909-38-4P 69066-46-2P 70200-14-5P 73919-87-6P 75172-31-5P 77295-59-1P 79354-51-1P 81239-01-2P 84709-85-3P 85070-48-0P, 3-Chloro-2-fluorobenzaldehyde 85838-94-4P 88157-42-0P 89795-16-4P 90365-74-5P 90481-30-4P 90931-33-2P 91108-45-1P 91503-67-2P 93704-68-8P 94391-50-1P 95306-84-6P 97644-78-5P 98400-69-2P 99891-36-8P 100683-08-7P 104092-54-8P 104227-71-6P 104227-72-7P 104351-40-8P 106047-17-0P 108796-58-3P 113020-21-6P 120301-74-8P 123536-66-3P, (1S,4S,5S)-4-Iodo-6-oxabicyclo[3.2.1]octan-7-one 124820-21-9P 132629-37-9P 134525-18-1P 135262-85-0P 137279-44-8P 137731-41-0P 143150-92-9P 143376-47-0P 149406-02-0P 150513-27-2P 153733-45-0P, 2-(4-Chloroanilino)-2-oxoacetic acid lithium salt 165948-22-1P, 6,7-Dihydro-4H-thiazolo[5,4-c]pyridine-5-carboxylic acid ethyl ester 165948-24-3P, 6,7-Dihydro-4H-thiazolo[5,4-c]pyridine-5-carboxylic acid tert-butyl ester 166734-76-5P 167631-23-4P 169674-14-0P 169674-55-9P 177765-50-3P 179926-90-0P 183606-83-9P 183607-06-9P 184954-75-4P 186431-93-6P 186446-26-4P 194788-10-8P 198995-91-4P 203787-70-6P, 2,2-Dimethyl-5-oxo-5,6-dihydro-2H-pyridine-1-carboxylic acid ethyl ester 219672-23-8P 219672-24-9P 234098-55-6P 259809-24-0P 259809-25-1P 259809-57-9P 259809-67-1P 259809-68-2P 259809-69-3P 259809-70-6P 259809-71-7P 259809-72-8P 259809-73-9P 259809-74-0P 259809-76-2P 259810-02-1P, 5,6-Dimethyl-4,5,6,7-tetrahydrothiazolo[4,5-d]pyridazine 259810-12-3P, [6,7-Dihydro-4H-pyrano[4,3-d]thiazol-2-yl]amine 259810-13-4P 259810-14-5P, 6,7-Dihydro-4H-pyrano[4,3-d]thiazole 259810-15-6P 262439-50-9P 263010-06-6P 281234-68-2P 292073-50-8P 332099-01-1P 332099-03-3P 365996-04-9P 365996-05-0P 365996-06-1P 365996-07-2P 365996-13-0P 365996-15-2P 365996-17-4P 365996-21-0P 365996-22-1P 365996-24-3P 365996-33-4P 365996-35-6P 365996-36-7P 365996-37-8P 365996-51-6P 365996-57-2P 365996-62-9P 365996-63-0P 365996-64-1P 365996-65-2P 365996-66-3P 365996-67-4P 365996-68-5P 365996-69-6P 365996-70-9P 365996-71-0P 365996-75-4P 365996-76-5P 365996-79-8P 365996-80-1P 365996-81-2P 365996-82-3P 365996-83-4P 365996-84-5P 365996-85-6P 365996-86-7P 365996-87-8P 365996-88-9P 365996-89-0P 365996-91-4P 365996-99-2P 365997-00-8P 365997-01-9P 365997-04-2P 365997-12-2P 365997-25-7P 365997-26-8P 365997-27-9P 365997-28-0P 365997-29-1P 365997-30-4P 365997-31-5P 365997-32-6P, (1S,3R,4R)-(+)-3-Azido-4-hydroxycyclohexanecarboxylic acid ethyl ester 365997-33-7P, (1S,3R,4R)-(+)-3-[(tert-Butoxycarbonyl)amino]-4-hydroxycyclohexanecarboxylic acid ethyl ester 365997-34-8P, (1S,3R,4S)-(+)-4-Azido-3-[(tert-butoxycarbonyl)amino]cyclohexanecarboxylic acid ethyl ester 365997-35-9P, (1S,3R,4R)-(-)-4-Azido-3-[(tert-butoxycarbonyl)amino]cyclohexanecarboxylic acid ethyl ester 365997-36-0P, (1S,3R,4R)-3-[(tert-Butoxycarbonyl)amino]-4-[(methanesulfonyl)oxy]cyclohexanecarboxylic acid ethyl ester 365997-38-2P 365997-40-6P 365997-41-7P 365997-42-8P

365997-43-9P 365997-44-0P 365997-45-1P 365997-46-2P
365997-47-3P 365997-48-4P 365997-49-5P 365997-50-8P,
(1R,3S,4S)-4-[(tert-Butoxycarbonyl)amino]-3-
hydroxycyclohexanecarboxylic acid benzyl ester 365997-52-0P
365997-53-1P, (1R,3R,4S)-3-Azido-4-[(tert-
butoxycarbonyl)amino]cyclohexanecarboxylic acid 365997-54-2P
365997-55-3P, (1R,3R,4S)-3-Amino-4-[(tert-
butoxycarbonyl)amino]cyclohexanecarboxylic acid methyl ester
365997-62-2P 365997-63-3P 365997-67-7P 365997-69-9P
365997-71-3P 365997-72-4P 365997-73-5P 365997-74-6P
365997-75-7P 365997-76-8P 365997-77-9P 365997-78-0P
365997-79-1P 365997-80-4P 365997-81-5P 365998-02-3P
365998-06-7P 365998-07-8P 365998-08-9P 365998-09-0P
365998-10-3P 365998-11-4P 365998-12-5P 365998-21-6P
365998-22-7P 365998-28-3P 365998-29-4P 365998-30-7P
365998-33-0P 365998-34-1P 365998-35-2P 365998-36-3P
365998-37-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation of N,N'-bis(heterocyclic
acyl)cycloalkanediamine and heterocyclediamine derivs. as
factor Xa and blood coagulation inhibitors for prevention and
treatment of thrombus and embolism)

IT 365998-38-5P 365998-40-9P 365998-64-7P 365998-79-4P
365998-82-9P 365998-85-2P 365998-86-3P 365998-94-3P
365998-95-4P 365998-96-5P 365998-97-6P 365998-98-7P
365998-99-8P 365999-00-4P 366006-11-3P 368441-90-1P
380357-29-9P, (1R*,2R*)-1,2-Bis[(methanesulfonyl)oxy]cyclopentane
380448-07-7P 479678-04-1P, 4,5-Di(chloromethyl)thiazole
480449-72-7P 480449-73-8P 480449-74-9P 480449-75-0P
480449-76-1P 480449-77-2P 480449-78-3P 480449-79-4P
480449-80-7P 480449-81-8P 480449-82-9P 480449-83-0P
480449-84-1P, (1S,3R,4S)-4-Amino-3-[(tert-
butoxycarbonyl)amino]cyclohexanecarboxylic acid ethyl ester
480449-85-2P, (1R)-3-Cyclohexene-1-carboxylic acid benzyl ester
480449-86-3P, (1R,3S,4S)-4-Azido-3-hydroxycyclohexanecarboxylic
acid benzyl ester 480449-87-4P 480449-88-5P 480449-89-6P
480449-90-9P 480449-91-0P 480449-93-2P 480449-95-4P
480449-97-6P 480449-99-8P 480450-01-9P 480450-03-1P
480450-04-2P 480450-06-4P 480450-08-6P 480450-10-0P
480450-11-1P 480450-13-3P 480450-14-4P 480450-15-5P
480450-16-6P 480450-17-7P 480450-18-8P 480450-19-9P
480450-20-2P 480450-21-3P, (1,1-Dioxo-1,2,3,4-
tetrahydrothiopyran-4-yl)carbamic acid tert-butyl ester
480450-22-4P 480450-23-5P 480450-24-6P, (3S,4S)-3,4-
Bis[(methanesulfonyl)oxy]pyrrolidine hydrochloride 480450-25-7P
480450-26-8P 480450-27-9P 480450-28-0P 480450-29-1P
480450-30-4P 480450-31-5P 480450-32-6P 480450-33-7P
480450-34-8P 480450-35-9P 480450-36-0P 480450-37-1P
480450-38-2P 480450-39-3P 480450-40-6P 480450-41-7P
480450-42-8P 480450-43-9P 480450-44-0P 480450-45-1P
480450-46-2P 480450-47-3P 480450-48-4P 480450-49-5P
480450-50-8P 480450-51-9P 480450-52-0P 480450-53-1P
480450-54-2P 480450-55-3P 480450-56-4P 480450-57-5P
480450-58-6P 480450-59-7P 480450-60-0P 480450-61-1P
480450-62-2P 480450-63-3P 480450-64-4P 480450-65-5P
480450-66-6P 480450-67-7P 480450-68-8P 480450-69-9P
480450-70-2P 480450-71-3P 480450-72-4P 480450-73-5P
480450-74-6P 480450-75-7P 480450-76-8P 480450-77-9P
480450-78-0P 480450-79-1P 480450-80-4P 480450-81-5P
480450-82-6P 480450-83-7P 480450-84-8P 480450-85-9P
480450-86-0P 480450-87-1P 480450-88-2P 480450-89-3P
480450-90-6P, 2-Azido-3-(3-chloro-2-fluorophenyl)acrylic acid
methyl ester 480450-91-7P 480450-92-8P 480450-93-9P
480450-94-0P 480450-95-1P 480450-96-2P 480450-97-3P
480450-98-4P 480450-99-5P 480451-00-1P 480451-01-2P
480451-02-3P 480451-03-4P 480451-04-5P 480451-05-6P

480451-06-7P 480451-07-8P 480451-08-9P 480451-09-0P
480451-10-3P 480451-11-4P 480451-12-5P 480451-13-6P
480451-14-7P 480451-15-8P 480451-16-9P 480451-17-0P
480451-18-1P 480451-19-2P 480451-20-5P 480451-21-6P
480451-22-7P 480451-23-8P 480451-24-9P 480451-26-1P
480451-27-2P 480451-28-3P 480451-29-4P 480451-30-7P
480451-31-8P 480451-32-9P 480451-33-0P 480451-34-1P
480451-35-2P 480451-36-3P 480451-37-4P 480451-39-6P
480451-41-0P 480451-43-2P 480451-45-4P 480451-47-6P
480451-49-8P 480451-51-2P 480451-53-4P 480451-55-6P
480451-58-9P 480451-62-5P 480451-66-9P 480451-69-2P
480451-72-7P 480451-75-0P 480451-77-2P 480451-78-3P
480451-79-4P 480451-81-8P 480451-83-0P 480451-85-2P
480451-87-4P 480451-89-6P 480451-91-0P 480451-93-2P
480451-95-4P 480451-97-6P 480451-98-7P 480452-00-4P
480452-02-6P 480452-04-8P 480452-06-0P 480452-08-2P
480452-10-6P 480452-12-8P 480452-14-0P 480452-15-1P
480452-16-2P 480452-17-3P 480452-18-4P 480452-19-5P
480452-20-8P 480452-21-9P 480452-22-0P 480452-23-1P
480452-24-2P 480452-25-3P 480452-27-5P 480452-28-6P
480452-29-7P 480452-31-1P 480452-32-2P 480452-33-3P
480452-34-4P 480452-35-5P 480452-36-6P 480452-37-7P
480452-38-8P 480452-39-9P 480452-40-2P 480452-41-3P
480452-42-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine and heterocyclediamine derivs. as factor Xa and blood coagulation inhibitors for prevention and treatment of thrombus and embolism)

IT 480452-43-5P 480452-44-6P 480452-45-7P 480452-47-9P
480452-48-0P 480452-49-1P 480452-50-4P, 6-[N-(tert-Butoxycarbonyl)methylamino]-4,5,6,7-tetrahydrobenzo[d]thiazole-2-carboxylic acid lithium salt 480452-51-5P 480452-52-6P
480452-53-7P 480452-54-8P 480452-55-9P, (3R)-3-[(tert-Butyldimethylsilyl)oxy]pyrrolidine hydrochloride 480452-56-0P
480452-58-2P 480452-59-3P 480452-60-6P 480452-61-7P
480452-62-8P 480452-63-9P, [(1R,2S,5S)-2-[[(5-Chloro-4-fluoroindol-2-yl)carbonyl]amino]-5-(dimethylaminocarbonyl)cyclohexyl]carbamic acid tert-butyl ester 480452-64-0P, N-[(1S,2R,4S)-2-Amino-4-(dimethylaminocarbonyl)cyclohexyl]-5-chloro-4-fluoroindole-2-carboxamide 480452-65-1P, N-[(1S,2R,4S)-2-Amino-4-(dimethylaminocarbonyl)cyclohexyl]-5-chloroindole-2-carboxamide hydrochloride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of N,N'-bis(heterocyclic acyl)cycloalkanediamine and heterocyclediamine derivs. as factor Xa and blood coagulation inhibitors for prevention and treatment of thrombus and embolism)

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 38 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:260246 HCAPLUS Full-text
DOCUMENT NUMBER: 132:265203
TITLE: Preparation of pyridazinone derivatives
INVENTOR(S): Gotoh, Makoto; Yamaguchi, Hiroshi; Motokawa, Takuya; Oshita, Yoshitami; Satoh, Akiyuki; Nagamine, Masashi
PATENT ASSIGNEE(S): Nihon Nohyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000021935	A1	20000420	WO 1999-JP5569	1999 1008 <--
W: AU, CA, CN, KR, US RW: CH, DE, FR, GB, IT				
AU 9960059	A1	20000501	AU 1999-60059	1999 1008 <--
JP 2000178258	A	20000627	JP 1999-289600	1999 1012 <--
PRIORITY APPLN. INFO.:			JP 1998-303284 A	1998 1009 <--
			WO 1999-JP5569 W	1999 1008 <--

ED Entered STN: 21 Apr 2000
GI

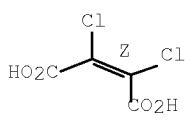
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT
*

AB Title compds. [I; wherein R1 is hydrogen, alkyl, benzene, substituted benzene, an aromatic heterocyclic group or a substituted aromatic heterocyclic group; X and Y are each independently halogeno; Z1 and Z2 are each independently a single bond, CH2, CO or S(O)n (wherein n is an integer of 0 to 2); R2 and R3 are each independently hydrogen, alkyl, substituted alkyl, amino, substituted amino, benzene, substituted benzene, aralkyl, substituted aralkyl, an aromatic heterocyclic group or a substituted aromatic heterocyclic group], pharmacol. acceptable salts thereof, medicinally acceptable carriers or diluents, and drug compns. containing I are prepared and tested. The title compound II was prepared

IT 608-42-4, Dichloromaleic acid 7446-70-0,
Aluminum chloride (AlCl3), reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of pyridazinone derivs.)

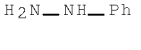
RN 608-42-4 HCAPLUS
CN 2-Butenedioic acid, 2,3-dichloro-, (2Z)- (CA INDEX NAME)

Double bond geometry as shown.



RN 7446-70-0 HCAPLUS
CN Aluminum chloride (AlCl3) (CA INDEX NAME)

IT 100-63-0P, Phenylhydrazine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of pyridazinone derivs.)
RN 100-63-0 HCAPLUS
CN Hydrazine, phenyl- (CA INDEX NAME)



IC ICM C07D237-14
ICS A61K031-50; C07D401-04; C07D405-04; C07D409-04; A61K031-506
CC 28-15 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63
ST pyridazinone prepn medicine
IT Antiulcer agents
(gastrointestinal; preparation of pyridazinone derivs. as medication)
IT Lung, disease
(injury, acute; preparation of pyridazinone derivs. as medication)
IT Reperfusion
(ischemia; preparation of pyridazinone derivs. for treatment of organ transplant rejection)
IT Allergy inhibitors
Anti-inflammatory agents
Antiarteriosclerotics
Antiasthmatics
Antirheumatic agents
Antitumor agents
Dermatitis
(preparation of pyridazinone derivs.)
IT Burn
Psoriasis
(preparation of pyridazinone derivs. as medication)
IT Transplant and Transplantation
(preparation of pyridazinone derivs. for treatment of organ transplant rejection)
IT 263406-53-7P 263406-61-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of pyridazinone derivs.)
IT 263406-43-5P 263406-44-6P 263406-45-7P 263406-46-8P
263406-49-1P 263406-50-4P 263406-51-5P 263406-54-8P
263406-55-9P 263406-56-0P 263406-57-1P 263406-79-7P
263406-81-1P 263406-82-2P 263406-90-2P 263406-92-4P
263406-93-5P 263406-97-9P 263406-98-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyridazinone derivs.)
IT 68-12-2, Dimethylformamide, reactions 93-07-2, 3,4-Dimethoxybenzoic acid 98-68-0, 4-Methoxybenzenesulfonyl

chloride 120-14-9, 3,4-Dimethoxybenzaldehyde 608-42-4,
Dichloromaleic acid 3535-37-3, 3,4-Dimethoxybenzoyl chloride
7446-70-0, Aluminum chloride (AlCl3), reactions
26386-88-9, Diphenylphosphoryl azide
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of pyridazinone derivs.)
IT 100-63-0P, Phenylhydrazine 263406-58-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation of pyridazinone derivs.)
IT 263406-47-9P 263406-48-0P 263406-52-6P 263406-59-3P
263406-60-6P 263406-62-8P 263406-63-9P 263406-64-0P
263406-65-1P, 4,5-Dichloro-6-(4-(((3,4-
dimethoxyphenyl)methyl)amino)phenyl)-2-phenyl-3(2H)-pyridazinone
263406-66-2P 263406-67-3P 263406-68-4P 263406-69-5P
263406-70-8P 263406-71-9P 263406-72-0P 263406-74-2P
263406-76-4P 263406-78-6P 263406-83-3P 263406-84-4P
263406-85-5P 263406-86-6P 263406-87-7P 263406-88-8P
263406-89-9P 263406-91-3P 263406-94-6P 263406-95-7P
263406-96-8P 263407-16-5P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(preparation of pyridazinone derivs.)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L107 ANSWER 39 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:267271 HCAPLUS Full-text
DOCUMENT NUMBER: 126:248582
TITLE: Use of vanadium bromoperoxidase as a signal-
generating enzyme for chemiluminescent
systems: test kits and analytical methods
INVENTOR(S): Friedman, Alan Eric; Groulx, Sarah Fingar;
Butler, Alison
PATENT ASSIGNEE(S): Johnson and Johnson Clinical Diagnostics,
Inc., USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9709447	A1	19970313	WO 1996-US13269	19960816
			<--	
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
US 5811253	A	19980922	US 1995-522604	19950901
			<--	
CA 2234912	A1	19970313	CA 1996-2234912	19960816
			<--	

AU 9669529	A	19970327	AU 1996-69529	1996 0816 <--
AU 714933	B2	20000113		
CN 1200766	A	19981202	CN 1996-197912	1996 0816 <--
EP 892855	A1	19990127	EP 1996-930523	1996 0816 <--
EP 892855	B1	20011107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
JP 11512281	T	19991026	JP 1996-511210	1996 0816 <--
AT 208424	T	20011115	AT 1996-930523	1996 0816 <--
NO 9800812	A	19980429	NO 1998-812	1998 0226 <--
PRIORITY APPLN. INFO.:			US 1995-522604 A	1995 0901 <--
			WO 1996-US13269 W	1996 0816 <--

OTHER SOURCE(S): MARPAT 126:248582

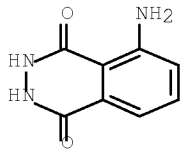
ED Entered STN: 26 Apr 1997

AB Aqueous compns., test kits and methods can be used to detect H2O2 or vanadium bromoperoxidase by generating a chemiluminescent signal in the presence of the analyte. Signal generation as well as reaction kinetics are improved by using a composition which comprises a 2,3-dihydro-1,4-phthalazinedione derivative; a halogen, pseudohalogen, halogen-providing or pseudohalogen-providing source, and a peroxide-generating reagent composition

IT 521-31-3, Luminol
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(use of vanadium bromoperoxidase as a signal-generating enzyme for chemiluminescent systems)

RN 521-31-3 HCAPLUS

CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



IC ICM C12Q001-28
ICS G01N033-58; C12Q001-68

CC 9-5 (Biochemical Methods)

IT Bioassay
(use of vanadium bromoperoxidase as a signal-generating enzyme for chemiluminescent systems)
IT Isocyanides
Peroxy acids
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(use of vanadium bromoperoxidase as a signal-generating enzyme for chemiluminescent systems)
IT 64-17-5, Ethanol, analysis 67-56-1, Methanol, analysis 67-63-0, Isopropanol, analysis 75-05-8, Acetonitrile, analysis 109-99-9, Tetrahydrofuran, analysis 110-54-3, Hexane, analysis
RL: AMX (Analytical matrix); ANST (Analytical study)
(use of vanadium bromoperoxidase as a signal-generating enzyme for chemiluminescent systems)
IT 7722-84-1, Hydrogen peroxide, analysis
RL: ANT (Analyte); ANST (Analytical study)
(use of vanadium bromoperoxidase as a signal-generating enzyme for chemiluminescent systems)
IT 57-12-5, Cyanide, uses 79-21-0, Peracetic acid 93-59-4, Peroxybenzoic acid 124-43-6 302-04-5, Thiocyanate, uses 521-31-3, Luminol 661-20-1, Cyanate 2890-11-1, 7-Dimethylaminonaphthalene-1,2-dicarboxylic acid hydrazide 3682-14-2, Isoluminol 7647-15-6, Sodium bromide, uses 12124-97-9, Ammonium bromide 12674-33-8, Perboric acid 14343-69-2, Azide 25815-95-6 29415-73-4 34423-11-5 37222-66-5, Oxone 66612-32-6, N-(6-Aminohexyl)-N-ethylisoluminol 69279-19-2 135509-90-9 154295-03-1 159489-91-5 159489-92-6 188650-99-9
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(use of vanadium bromoperoxidase as a signal-generating enzyme for chemiluminescent systems)

L107 ANSWER 40 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:572012 HCAPLUS Full-text
DOCUMENT NUMBER: 107:172012
TITLE: Improving the quantum yield of the oxidation of luminol with peroxide in the presence of peroxidase
INVENTOR(S): Wulff, Karl; Gerber, Marin
PATENT ASSIGNEE(S): Boehringer Mannheim G.m.b.H., Fed. Rep. Ger.
SOURCE: Ger. Offen., 9 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3545398	A1	19870625	DE 1985-3545398	1985 1220 <--
US 4834918	A	19890530	US 1986-939867	1986 1210 <--
FI 8605166	A	19870621	FI 1986-5166	1986 1217 <--
FI 84519	B	19910830		
FI 84519	C	19911210		
DK 8606121	A	19870621	DK 1986-6121	

				1986 1218 <--
JP 62156546	A	19870711	JP 1986-300228	1986 1218 <--
JP 06006074	B	19940126		
EP 228046	A2	19870708	EP 1986-117749	1986 1219 <--
EP 228046	A3	19880907		
EP 228046	B1	19920325		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
ZA 8609544	A	19870826	ZA 1986-9544	1986 1219 <--
AT 74209	T	19920415	AT 1986-117749	1986 1219 <--
ES 2031065	T3	19921201	ES 1986-117749	1986 1219 <--
PRIORITY APPLN. INFO.:			DE 1985-3545398 A	1985 1220 <--
			EP 1986-117749 A	1986 1219 <--

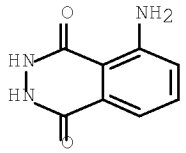
ED Entered STN: 14 Nov 1987

AB The luminescence quantum yield for the reaction of luminol or 7-dialkylaminonaphthalene-1,2-dicarboxylic acid hydrazides (C1-3 alkyl groups) with peroxide in the presence of peroxidase (POD), useful in immunoassays, is increased by carrying out the reaction in the presence of fluorescein. A reaction mixture comprising luminol 0.1, H_2O_2 0.1, and Tris-HCl buffer (pH 8.5) 90 mM with fluorescein 25 μM and POD 20 ng/L (final concns.) produced a maximum luminescence intensity of 3.9 + 105 impulses/2 s, vs. 2.7 + 104 and 5.8 + 103 impulses/2 s for mixts. without fluorescein and luminol, resp.

IT 521-31-3, Luminol
RL: ANST (Analytical study)
(chemiluminescence quantum yield for mixture of fluorescein and, synergism in)

RN 521-31-3 HCAPLUS

CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



IC ICM C09K011-07
ICS C12Q001-28; G01N033-53

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 15, 73

ST luminol fluorescein synergy quantum yield; luminescence quantum yield luminol fluorescein; chemiluminescence quantum yield luminol fluorescein; serum immunoassay luminol fluorescein marker; amylase immunoassay luminol fluorescein marker; peroxidase immunoassay luminol fluorescein marker; alkylaminonaphthalenecarboxylic hydrazide luminescence

IT Immunochemical analysis
(chemiluminescence mixts. containing fluorescein and luminol or hydrazides in)

IT Hydrazides
RL: ANST (Analytical study)
(chemiluminescence quantum yields for mixts. of fluorescein and, synergism in)

IT Luminescence, chemi-
(of fluorescein and luminol or hydrazides, quantum yield of, synergism in relation to)

IT Immunochemical analysis
(enzyme-linked immunosorbent assay, chemiluminescence mixts. containing fluorescein and luminol or hydrazides in)

IT 2321-07-5
RL: ANST (Analytical study)
(chemiluminescence of mixts. of luminol or hydrazides with, synergism in)

IT 521-31-3, Luminol 110762-17-9
RL: ANST (Analytical study)
(chemiluminescence quantum yield for mixture of fluorescein and, synergism in)

IT 7632-04-4 7722-84-1, Hydrogen peroxide, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(chemiluminescence reaction of, with mixts. of fluorescein and luminol or hydrazides in presence of peroxidase)

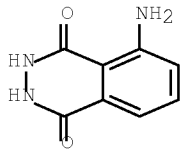
IT 9003-99-0, Peroxidase
RL: ANT (Analyte); ANST (Analytical study)
(determination of, chemiluminescence mixts. containing fluorescein and luminol or hydrazides for, in immunoassays)

L107 ANSWER 41 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:163121 HCAPLUS Full-text
DOCUMENT NUMBER: 102:163121
ORIGINAL REFERENCE NO.: 102:25595a,25598a
TITLE: Enhancement of the horseradish peroxidase-catalyzed chemiluminescent oxidation of cyclic diacyl hydrazides by 6-hydroxybenzothiazoles
AUTHOR(S): Thorpe, Gary H. G.; Kricka, Larry J.; Gillespie, Eileen; Moseley, Susan; Amess, Robert; Baggett, Neil; Whitehead, Thomas P.
CORPORATE SOURCE: Dep. Clin. Chem., Queen Elizabeth Med. Cent., Birmingham, B15 2TH, UK
SOURCE: Analytical Biochemistry (1985), 145(1), 96-100
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 18 May 1985

AB 6-Hydroxybenzothiazole, 2-cyano-6-hydroxybenzothiazole, and 2-(6-hydroxy-2-benzothiazolyl)thiazole-4-carboxylic acid (dehydroluciferin) dramatically enhance light emission from the horseradish peroxidase conjugate catalyzed oxidation of luminol, isoluminol, N-(6-aminobutyl)-N-Et isoluminol, and 7-dimethylaminonaphthalene-1,2-dicarboxylic acid hydrazide by either peroxide or perborate. Light emission is enhanced by up to 1000-fold, which is an improvement over the enhancement previously observed using firefly luciferin (4,5-dihydro-2-(6-hydroxy-2-benzothiazolyl)thiazole-4-carboxylic acid). Enhancement is influenced by enhancer concentration and pH. Spectral scans of light emitted in enhanced and unenhanced reactions are similar, suggesting that aminophthalate products, and not the enhancers, are the emitters.

IT 521-31-3
RL: ANST (Analytical study)

(chemiluminescent oxidation of, peroxidase-catalyzed, hydroxybenzothiazoles enhancement of)
RN 521-31-3 HCAPLUS
CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



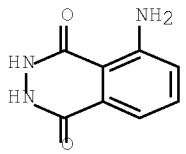
CC 9-2 (Biochemical Methods)
ST peroxidase chemiluminescent oxidn diacyl hydrazide; hydroxybenzothiazole oxidn cyclic diacyl hydrazide
IT Oxidation
(chemiluminescent, of cyclic diacyl hydrazides, peroxidase-catalyzed, hydroxybenzothiazoles enhancement of)
IT Hydrazides
RL: ANST (Analytical study)
(cyclic diacyl, chemiluminescent oxidation of, peroxidase-catalyzed, hydroxybenzothiazoles enhancement of)
IT Luminescence, chemi-
(of peroxidase-catalyzed oxidation of cyclic diacyl hydrazides, hydroxybenzothiazoles enhancement of)
IT 521-31-3 2890-11-1 3682-14-2 66612-29-1
RL: ANST (Analytical study)
(chemiluminescent oxidation of, peroxidase-catalyzed, hydroxybenzothiazoles enhancement of)
IT 9003-99-0D, conjugates
RL: ANST (Analytical study)
(horseradish, cyclic diacyl hydrazides oxidation by, hydroxybenzothiazoles enhancement of)
IT 939-69-5 13599-84-3 13599-84-3D, derivs. 20115-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(peroxidase-catalyzed chemiluminescent oxidation of cyclic diacyl hydrazides enhancement by)
IT 2591-17-5
RL: ANST (Analytical study)
(peroxidase-catalyzed chemiluminescent oxidation of cyclic diacyl hydrazides enhancement by, hydroxybenzothiazoles compared to)

L107 ANSWER 42 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:490135 HCAPLUS Full-text
DOCUMENT NUMBER: 101:90135
ORIGINAL REFERENCE NO.: 101:13815a,13818a
TITLE: Mechanistic aspects of diazaquinone chemiluminescence
AUTHOR(S): Paul, D. Brenton
CORPORATE SOURCE: Mater. Res. Lab., Def. Sci. Technol. Organ., Ascot Vale, 3032, Australia
SOURCE: Australian Journal of Chemistry (1984), 37(5), 1001-8
CODEN: AJCHAS; ISSN: 0004-9425
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 15 Sep 1984
AB Twelve cyclic hydrazides of aromatic and heterocyclic o- dicarboxylic acids were converted to diazaquinones by treatment with tert-Bu hypochlorite. Chemiluminescence was produced from all diazaquinones on treatment with HO2- derived from H2O2 and KOH. Diazaquinones derived from pyridine and pyrazine o-dicarboxylic acid hydrazides

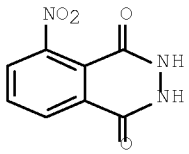
afforded chemiluminescence with H2O2 alone. Such nitrogen bases and N-oxides increase the nucleophilicity of H2O2 by complex formation and this effect was also exemplified by observation of chemiluminescence from phthalazine-1,4-diones, H2O2 and either pyridine or pyridine N-oxide. Highly reactive diazaquinones emit light with aqueous alkali and oxygen. No chemiluminescence was produced with organic bases and oxygen; this suggests the involvement of a different mechanism compared with the hydroperoxide anion case.

IT 521-31-3 3682-15-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of)

RN 521-31-3 HCAPLUS
CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



RN 3682-15-3 HCAPLUS
CN 1,4-Phthalazinedione, 2,3-dihydro-5-nitro- (CA INDEX NAME)



CC 22-7 (Physical Organic Chemistry)

ST diazaquinone oxidn chemiluminescence; dicarboxylate hydrazide oxidn

IT Oxidation
(of cyclic hydrazides, chemiluminescence in relation to)

IT 521-31-3 1445-69-8 3682-15-3 3682-19-7
4430-77-7 13480-40-5 21389-21-9 31384-08-4 89663-08-1
89663-09-2 91533-21-0 91533-22-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of)

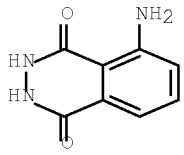
IT 20116-64-7P 21389-20-8P 54535-42-1P 57098-00-7P
60851-83-4P 91533-14-1P 91533-15-2P 91533-16-3P
91533-17-4P 91533-18-5P 91533-19-6P 91533-20-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with alkaline hydrogen peroxide, chemiluminescence by)

IT 91533-23-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by alkaline hydrolysis of phthalazinedione)

IT 37749-50-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by decomposition of phthalazinedione)

L107 ANSWER 43 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:42475 HCAPLUS Full-text

DOCUMENT NUMBER: 82:42475
ORIGINAL REFERENCE NO.: 82:6761a,6764a
TITLE: Luminol chemiluminescence in presence of Lewis acids
AUTHOR(S): Nikokavouras, J.; Vassilopoulos, G.
CORPORATE SOURCE: Nucl. Res. Cent., Athens, Greece
SOURCE: Zeitschrift fuer Physikalische Chemie (Muenchen, Germany) (1974), 91(1-4), 36-43
CODEN: ZPCFAX; ISSN: 0044-3336
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Studies of the fluorescence spectra of 10-4-10-6M luminol (I) in 3% AlCl3 in EtOH containing 0.28M H2O2 prior to and during oxidation and of the chemiluminescence spectrum showed a maximum quantum yield Φ = 10-4 Einstein/mole (10-4M I) and 2,3-(HO2C)2C6H3NH2 as main product as observed for I in alkaline solns. The luminescence maximum were blue-shifted with respect to alkaline solns., and Φ decreased sharply with decreasing I concentration
IT 521-31-3
RL: PRP (Properties)
(chemiluminescence of, in solns. containing aluminum chloride and hydrogen peroxide)
RN 521-31-3 HCAPLUS
CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



CC 22-2 (Physical Organic Chemistry)
IT 521-31-3
RL: PRP (Properties)
(chemiluminescence of, in solns. containing aluminum chloride and hydrogen peroxide)

L107 ANSWER 44 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:537571 HCAPLUS Full-text
DOCUMENT NUMBER: 81:137571
ORIGINAL REFERENCE NO.: 81:21647a,21650a
TITLE: Azo pigments
INVENTOR(S): Kawamura, Kimihide; Horiguchi, Shojiro; Yoshida, Akio; Shibata, Tamiaki
PATENT ASSIGNEE(S): Dainichiseika Color and Chemicals Mfg. Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

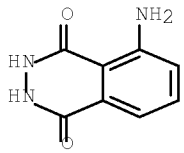
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 48059131	A	19730818	JP 1971-95229	1971 1129

<--

JP 50023689 B 19750809
PRIORITY APPLN. INFO.: JP 1971-95229 A 1971 1129

<--

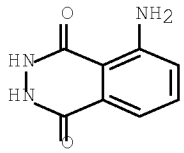
ED Entered STN: 12 May 1984
AB Diazotized aminoaryl o-dicarboxylic acid cyclic hydrazides are coupled with phenols or naphthols to give azo pigments. For example, 6-amino-2,3-dihydro-1,4- phthalazinedione [3682-14-2] was diazotized and coupled with 3-hydroxy-2-naphth-p-anisidide [92-79-5] to give lightfast red pigment I (R = 4-MeOC6H4, azo in 6 position) [52767-22-3]. Similarly prepared were reddish brown I (R = 2-methoxydibenzofuran-3-yl, azo in 5 position) [52767-23-4] and orange pigment II [52767-24-5].
IT 521-31-3
RL: USES (Uses)
(reaction of diazotized, with (hydroxynaphthamido)methoxydibenzofuran)
RN 521-31-3 HCAPLUS
CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



INCL 23D3
CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
Section cross-reference(s): 25, 28, 42
IT 52767-22-3P 52767-23-4P 52767-24-5P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)
IT 521-31-3
RL: USES (Uses)
(reaction of diazotized, with (hydroxynaphthamido)methoxydibenzofuran)

L107 ANSWER 45 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:421890 HCAPLUS Full-text
DOCUMENT NUMBER: 67:21890
ORIGINAL REFERENCE NO.: 67:4179a,4182a
TITLE: Synthesis and chemiluminescence of an amino derivative and sulfur analog of luminol
AUTHOR(S): White, Emil Henry; Matsuo, Kohtaro
CORPORATE SOURCE: Johns Hopkins Univ., Baltimore, MD, USA
SOURCE: Journal of Organic Chemistry (1967), 32(6), 1921-6
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB A diaminophthalic hydrazide (I) was synthesized in 7 steps from chloronitrophthalimide. The compound proved to be only about 1/3 as efficient in light production as luminol. A sulfur analog of luminol, 4-dodecanethiophthalic hydrazide (II) was also prepared and tested. Contrary to a report in the literature (Morgan, CA 55: 21800g), the oxidation of 5,6-dimethylbenzimidazole yields principally 5-methylbenzimidazole-6-carboxylic acid and not benzimidazole-5,6- dicarboxylic acid (a potential precursor in the synthesis of I).
IT 521-31-3DP, 1,4-Phthalazinedione, 5-amino-2,3-dihydro-, analogs
RL: PRP (Properties); SPN (Synthetic preparation); PREP

(Preparation)
(preparation and chemiluminescence of)
RN 521-31-3 HCAPLUS
CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



CC 28 (Heterocyclic Compounds (More Than One Hetero Atom))
ST LUMINOL ANALOGS; DIAMINOPHTHALIC HYDRAZIDES; HYDRAZIDES DIAMINOPHTHALIC; CHEMILUMINESCENCE LUMINOLS; BENZIMIDAZOLES OXIDN; OXIDN BENZIMIDAZOLES
IT 521-31-3DP, 1,4-Phthalazinedione, 5-amino-2,3-dihydro-, analogs 10351-64-1P 10351-84-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and chemiluminescence of)
IT 582-60-5P 5566-47-2P 7153-23-3P 10351-66-3P 10351-67-4P
10351-68-5P 10351-69-6P 10351-70-9P 10351-71-0P
10351-72-1P 10351-73-2P 10351-74-3P 10351-75-4P
10351-76-5P 10351-77-6P 10351-78-7P 10351-79-8P
10351-80-1P 10351-82-3P 10351-83-4P 10351-85-6P
10378-07-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L107 ANSWER 46 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:43270 HCAPLUS Full-text
DOCUMENT NUMBER: 64:43270
ORIGINAL REFERENCE NO.: 64:8024b-h,8025a
TITLE: Reactions of aliphatic diazo compounds with acetals, orthocarboxylic esters, and their sulfur analogs using Lewis acid catalysis. II. Reactions of ethyl diazoacetate with acetals and orthocarboxylic acid trialkyl esters
AUTHOR(S): Schoenberg, Alexander; Praefcke, Klaus
CORPORATE SOURCE: Tech. Univ., Berlin
SOURCE: Chemische Berichte (1966), 99(1), 196-204
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 64:43270
ED Entered STN: 22 Apr 2001
AB cf. CA 61, 10586b. Acetals and orthocarboxylic acid esters reacted at room temperature in the presence of Et2O.BF3 with N2CHCO2Et (I) with the formation of the corresponding RR2(R1O)CCH(OR1)CO2Et (Ia). This reaction is an exptl. simple method for the conversion of acetals and ortho esters to carboxylic acid esters with chain lengthening. 1,3-Dioxolane (II) with catalytic amts. BF3 and a little I yielded a solid polymer. I (17.13 g.) and 22.3 g. HC(OEt)3 (III) in dry Et2O added dropwise at 40° during 2.5 hrs. to 22.3 g. III and 1 cc. Et2O.BF3 yielded 25.8 g. III, 2 g. brown residue, and 23.8 g. Ia (R = H, R1= Et, R2 = EtO) (IV), b11 113° n25D 1.4153. Similar runs with equimolar amts. I and III and 0.5 cc. Et2O.BF3 at -19°, 13°, 40°, and 45° yielded 11.6, 20, 21.7, and 23 g. IV, resp. IV (29.06 g.) stirred 6 days at room temperature with 140 cc. concentrated aqueous NH4OH yielded quant. (EtO)2CHCH(OEt)CONH2, m. 61.5° [C6H6-ligroine (b. 60-70°)]. IV (66.9 g.) and 0.5 g. NaHSO4.H2O heated 80 min. at 225° gave quant. EtOH and 88% EtOCH:C(OEt)CO2Et (V), b11,

114.5°, n25D 1.4512. V (28.23 g.) hydrogenated over 0.4 g. PtO2 gave 26.5 g. EtOCH2 CH(OEt)CO2Et, b11.5 95°, n25D 1.4139. HC(OMe)3 (VI) (42.5 g.) and 1 cc. Et2O.BF3 treated dropwise at 35-40° with 34.20 g. I in 10 cc. VI yielded 26.6 g. Ia (R = H, R1= Me, R2 = OMe) (VII), b12 100° n25D 1.4154, and 8.6 g. brown, polymeric residue. VII (9.61 g.) and 67 cc. concentrated NH4OH stirred 24 hrs. at room temperature gave quant. (MeO)2CCHCH(OMe)CONH2, m. 100.5° (1:3 Et2O-C6H6). VII (48.3 g.) and 0.5 g. NaHSO4H2O heated during 1.5 hrs. slowly to 180° yielded 8 g. MeOH and 35.7 g. MeOCH:C(OMe)CO2Et) (VIII), b11 103°, n25D 1.4569. VIII (12.62 g.) hydrogenated over 0.3 g. PtO2 yielded 12.64 g. MeOCH2CH(OMe)CO2Et, b11.5 84°, n25D1.4138. I (34.26 g.) in 16.20 g. MeC(OEt)3 (IX) added dropwise during 3 hrs. at 55-60° to 56.78 g. IX and 2 cc. Et2O.BF3 yielded 12.8 g. unreacted IX, 9 g. brown, polymeric residue, and 37.2 g. Ia (R = Me, R1 = Et, R2 = EtO) (X), b11, 112°, n25D 1.4210. X (3.3 g.), 50 cc. H2O, and 5 cc. concentrated HCl stirred 3 hrs. at room temperature, poured into 2.9 g. 2,4-(O2N)2C6H3NHNH2 and 1 cc. concentrated HCl in 230 cc. refluxing EtOH, and refluxed 10 min. yielded 3.5 g. yellow 2,4-(O2N)2C6H3NHN:CMeCH(OEt)CO2Et, m. 120-1° (EtOH). X (14.1 g.) and 0.5 g. NaHSO4.H2O heated during 1.5 hrs. to 180° gave quant. EtOH and 17.3 g. MeC(OEt):C(OEt)CO2Et, b11.5 107°, n25D 1.4472. EtC(OEt)3 (XI), (61.7 g.) and 1 cc. Et2O.BF3 treated dropwise during 2 hrs. at 50° with 34.3 g. I in 15 cc. dry Et2O gave 27.4 g. XI, 7 g. red-brown residue, and 36.2 g. Ia (R = R1 = Et, R2 = EtO) (XII), b11 115.8°, π25D 1.4256. XII (3.30 g.), 50 cc. H2O, and 5 cc. concentrated HCl stirred 3 hrs. at room temperature, poured into 2.7 g. 2,4-(O2N)2C6H3NHNH2 and 1 cc. concentrated HCl in 220 cc. refluxing EtOH, and refluxed 10 min. gave 2.3 g. 2,4-(O2N)2C6H3NHN:CEtCH(OEt)CO2Et, m. 94-5° (EtOH). MeCH(OEt)2 (XIII) (41.4 g.) and 2 cc. Et2O.BF3 treated dropwise at 55° with 34.3 g. I in 12 cc. XIII gave 13 g. brown residue, 17.2 g. EtOCH2CO2Et (XIV), b11 55°, n25D 1.4019 [EtOCH2CONH2, m. 81° (sublimed)], and 6.2 g. Ia (R = Me, R1 = Et, R2 = H), b11, 86°, n25D 1.4140. PhCH(OEt)2 (54.1 g. and 1 cc. Et2O.BF3 treated dropwise at about 55° during 165 min. with 45.6 g. I in 20 cc. dry Et2O gave 8.2 g. unreacted I, 10.4 g. red-brown, viscous polymer, and 63.2 g. mixed isomeric Ia (R = Ph, R1 = Et, R2 = H), b11 157°, n25D 1.4845. PhCH(OMe)2 (XV) (53.3 g.) and 1 cc. Et,2O.BF3 treated dropwise with 34.4 g. I gave 9.9 g. unreacted XV, 8.8 g. red-brown residue, and 54.4 g. mixed isomeric Ia (R = Ph, R1 = Me, R2 = H), b12 150.6°, n25D 1.4903. II (18.5 g.) treated at room temperature with 2 cc. Et2O.BF3 and then with a little I gave 20.5 g. polymer, m. 53-6° (C6H6-AcOEt). II (38.5 g.) treated similarly with 0.2 cc. Et2O.BF3 and 4 g. I gave 20.5 g. waxy solid, m. 52-5°. The 2,2-dimethyl, 2,2-pentamethylene, and 2-Ph derivs. of II and o-C6H4(O2CH2) with I at 40-60° in the presence of catalytic amts. Et2O.BF3 gave predominantly resinous products. Me2C(OEt)2 (0.2 mole) and I at 40° gave a small amount unidentified oil, b11 about 90°, much polymeric residue, and 13.2 g. XIV, b11 54°, n25D 1.4028.

CC 33 (Aliphatic Compounds)

IT Spectra, visible and ultraviolet
(of cyclohexanone and cyclohexenone derivative (2,4-dinitrophenyl) hydrazones)

IT Spectra, infrared
(of cyclohexanone and cyclohexenone derivative (2,4-dinitrophenyl) hydrazones and di-Et 1,4-dihydro-2,4,6-trimethylpyridine-3,5-dicarboxylate)

IT 2-Cyclohexene-1-carboxylic acid, 2,6-dimethyl-4-oxo-, ethyl ester, (2,4-dinitrophenyl)hydrazone, mixture with Et 4,6-dimethyl-2-oxo-3-cyclohexene-1-carboxylate (2,4-dinitrophenyl)hydrazone
2-Cyclohexene-1-carboxylic acid, 2,6-dimethyl-4-oxo-, ethyl ester, mixture with Et 4,6-dimethyl-2-oxo-3-cyclohexene-1-carboxylate
3-Cyclohexene-1-carboxylic acid, 4,6-dimethyl-2-oxo-, ethyl ester, (2,4-dinitrophenyl)hydrazone, mixture with Et 2,6-dimethyl-4-oxo-2-cyclohexene-1-carboxylate (2,4-dinitrophenyl)hydrazone
3-Cyclohexene-1-carboxylic acid, 4,6-dimethyl-2-oxo-, ethyl ester, mixture with Et 2,6-dimethyl-4-oxo-2-cyclohexene-1-carboxylate
Butyric acid, 2,3,3-triethoxy-, ethyl ester
RL: PREP (Preparation)

IT 5409-57-4, Glutaric acid, 2,4-diacetyl-3-methyl-, diethyl ester (bis[(2,4-dinitrophenyl)hydrazone])

IT 632-93-9P, 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,4,6-trimethyl-, diethyl ester 817-95-8P, Acetic acid, ethoxy-, ethyl ester 5256-74-6P, Malonic acid, diazo-, diethyl ester

5423-31-4P, 4-Cyclohexene-1,3-dicarboxylic acid
, 2,4-dimethyl-6-oxo-, diethyl ester 6085-13-8P, Acrylic acid,
2,3-diethoxy-, ethyl ester 6085-14-9P, Propionic acid,
2,3,3-trimethoxy-, ethyl ester 6085-14-9P, Malonaldehydic acid,
methoxy-, ethyl ester, di-Me acetal 6085-15-0P, Acetoacetic
acid, 2-ethoxy-, ethyl ester, di-Et acetal 6085-17-2P, Valeric
acid, 2-ethoxy-3-oxo-, ethyl ester, (2,4-dinitrophenyl)
hydrazone 6085-19-4P, Hydrocinnamic acid,
α,β-diethoxy-, ethyl ester 6085-20-7P, Hydrocinnamic
acid, α,β-dimethoxy-, ethyl ester 6085-22-9P,
Phosphorane, [(dicarboxymethylene)hydrazono]triphenyl-,
dimethyl ester 6102-13-2P, 1,3-Cyclohexanedicarboxylic acid,
4-hydroxy-2,4-dimethyl-6-oxo-, diethyl ester 6102-14-3P,
4-Cyclohexene-1,3-dicarboxylic acid,
2,4-dimethyl-6-oxo-, diethyl ester, (2,4-dinitrophenyl)
hydrazone, stereoisomers 6102-17-6P, 2-Cyclohexen-1-one,
3,5-dimethyl-, (2,4-dinitrophenyl)hydrazone
6102-18-7P, Malonaldehydic acid, ethoxy-, ethyl ester, di-Et
acetal 6102-19-8P, Malonaldehydamide, 2-ethoxy-, diethyl acetal
6102-19-8P, Propionamide, 2,3,3-triethoxy- 6158-28-7P,
1,3-Cyclohexanedicarboxylic acid, 4-hydroxy-2,4-dimethyl-6-oxo-,
diethyl ester, (2,4-dinitrophenyl)hydrazone,
stereoisomers 6174-91-0P, Malonaldehydamide, 2-methoxy-,
dimethyl acetal 6174-92-1P, Acrylic acid, 2,3-dimethoxy-, ethyl
ester 6174-93-2P, Valeric acid, 2-ethoxy-3-oxo-, ethyl ester,
di-Et acetal 6254-05-3P, Glutaric acid, 2,4-diacetyl-3-methyl-,
diethyl ester, bis[(2,4-dinitrophenyl)hydrazone]
6410-73-7P, Propionic acid, 2,3-dimethoxy-, ethyl ester
6410-74-8P, Acetoacetic acid, 2-ethoxy-, ethyl ester,
(2,4-dinitrophenyl)hydrazone 6513-09-3P, Butyric acid,
2,3-diethoxy-, ethyl ester 6773-29-1P, Malonic acid, diazo-,
dimethyl ester 10120-24-8P, Propionic acid, 2,3-diethoxy-, ethyl
ester 91007-46-4P, Crotonic acid, 2,3-diethoxy-, ethyl ester
RL: PREP (Preparation)
(preparation of)

L107 ANSWER 47 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:483104 HCAPLUS Full-text
DOCUMENT NUMBER: 65:83104
ORIGINAL REFERENCE NO.: 65:15607f-g
TITLE: Poly(oxymethylene) copolymers
PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd.
SOURCE: 4 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1420051		19651203	FR 1964-90	1964 1228 <--
PRIORITY APPLN. INFO.:			JP	1963 1228 <--

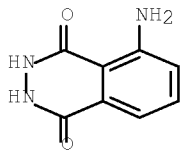
ED Entered STN: 22 Apr 2001
AB The title compds. (I) of good thermal stability are prepd . by copolymerizing trioxane (II) with the anhydride of an unsatd. aliphatic dicarboxylic acid (III) followed by treatment with a N-containing compound (IV). Polymerization is effected by using β- or gamma;-radiation, a Lewis acid, or an organic peroxide. For example, a mixture of 20 g. of II and 1 g. itaconic anhydride (III) is degassed at -20° and irradiated at 0° with γ-rays of intensity 5.1 + 104 rads/hr. After heating at 50° for 8 hrs., the

copolymer is extracted with acetone. It m. 175° and has a sp. viscosity of 2.2 in a 1% solution in p-chlorophenol at 60°. Five g. of this copolymer is then treated with 30 cc. liquid NH3 (IV) at 50° for 20 hrs., to give a 99% yield of I with a rate of decomposition at 222° (K222) of 0.15%/min. The preparation of other copolymers of II is described (III, IV, and K222 given): maleic anhydride (V), N2H4 0.16; V, IV, 0.18; III, Et2NH, 0.19; III, urea, 0.15.

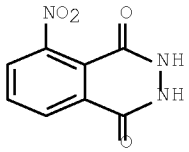
IC C08G
CC 48 (Plastics Technology)
IT Gamma rays
(in presence of polyesters, with unsatd. aliphatic dicarboxylic acid anhydrides)
IT Polyoxymethylenes
(manufacture by trioxane polymerization, with unsatd. decarboxylic acid anhydrides and reaction with N-containing compds., thermal stability of)
IT Polymerization
(of s-trioxane, with unsatd. aliphatic dicarboxylic acid anhydrides, by irradiation or peroxide catalysts)
IT Amines
(reaction products of, with s-trioxane-unsatd. aliphatic dicarboxylic acid anhydride polymers, thermal stability of)
IT 80-15-9, Hydroperoxide, α,α-dimethylbenzyl 94-36-0, Benzoyl peroxide 105-74-8, Lauroyl peroxide 110-05-4, tert-Butyl peroxide
(catalysts in polymerization, of s-trioxane with unsatd. aliphatic dicarboxylic acid anhydrides)
IT 110-22-5, Acetyl peroxide 1338-23-4, 2-Butanone, peroxide 6214-21-7, Benzenesulfonic acid, m-nitro-, methyl ester 28604-90-2, Peroxide, bis(dichlorobenzoyl)
(catalysts, in polymerization of s-trioxane with unsatd. aliphatic dicarboxylic acid anhydrides)
IT 7637-07-2, Boron fluoride
(catalysts, of s-trioxane with unsatd. aliphatic dicarboxylic acid anhydrides)
IT 110-88-3, s-Trioxane
(polymerization of, with unsatd. aliphatic dicarboxylic acids, by irradiation or peroxide catalysts)
IT 96-02-6, Maleic anhydride, chloro-, polymers with s-trioxane 28157-80-4, Succinic anhydride, methylene-, polymer with s-trioxane 29035-55-0, Maleic anhydride, polymer with s-trioxane
(reaction products with amines, thermal stability of)
IT 57-13-6, Urea 75-55-8, Aziridine, 2-methyl- 91-59-8, 2-Naphthylamine 100-63-0, Hydrazine, phenyl- 107-15-3, Ethylenediamine 109-89-7, Diethylamine 302-01-2, Hydrazine 2835-68-9, Benzamide, p-amino- 7664-41-7, Ammonia
(reaction products with s-trioxane-unsatd. aliphatic dicarboxylic acid anhydride polymers, thermal stability of)
IT 105-65-7, Formic acid, dithiobis[thio-, O,O-diisopropyl ester
(urethan rubbers containing, heat and light stability of)
IT 12587-47-2, Beta ray
(s-trioxane polymerization with unsatd. aliphatic dicarboxylic acid anhydrides by)

L107 ANSWER 48 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1953:22666 HCAPLUS Full-text
DOCUMENT NUMBER: 47:22666
ORIGINAL REFERENCE NO.: 47:3929a-b
TITLE: The activity of hydrazine derivatives against Mycobacterium tuberculosis
AUTHOR(S): Offe, Hans A.; Siefken, W.; Domagk, G.
CORPORATE SOURCE: Farbenfabriken, Leverkusen, Germany
SOURCE: Zeitschrift fuer Naturforschung (1952

), 7b, 446-62
CODEN: ZNTFA2; ISSN: 0372-9516
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 22 Apr 2001
AB The following groups of compds. were examined for tuberculostatic activity: dibenzoylhydrazine and derivs., monobenzoylhydrazine and derivs., hydrazides of aliphatic carboxylic acids and the corresponding hydrazones, hydrazides of alicyclic and mixed aliphaticcyclic carboxylic acids, azines, certain heterocyclic compds. and sulfonic acid hydrazides and related compds. Approximately 230 compds. were tested and their activity is described in table form. Structure-activity relations are discussed.
IT 521-31-3, 1,4-Phthalazinedione, 5-amino-2,3-dihydro-
3682-15-3, 1,4-Phthalazinedione, 2,3-dihydro-5-nitro-
(tuberculostatic activity of)
RN 521-31-3 HCAPLUS
CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



RN 3682-15-3 HCAPLUS
CN 1,4-Phthalazinedione, 2,3-dihydro-5-nitro- (CA INDEX NAME)



CC 11C (Biological Chemistry: Microbiology)
IT Mycobacterium tuberculosis
Mycobacterium tuberculosis
(hydrazine derivs. and)
IT Hydrazine, 1,2-bis(2,5-dichlorobenzoyl)-
Hydrazine, 1,2-dicrotonoyl-
Hydrazine, 1-benzoyl-2-ethylidene-
Hydrazine, 1-benzylidene-2-(2,5-dichlorobenzoyl)-
(tuberculostatic activity of)
IT 123-11-5, p-Anisaldehyde
(acyl and sulfonyl hydrazones, tuberculostatic activity of)
IT 50-99-7, D-Glucose
(acyl hydrazones, tuberculostatic activity of)
IT 98-86-2, Acetophenone 122-85-0, Acetanilide, 4'-formyl-
(acylhydrazones and azine, tuberculostatic activity of)
IT 936-02-7, Salicylic acid, hydrazide 5351-17-7, Benzoic acid, p-amino-, hydrazide
(antitubercular action of)
IT 3290-99-1, p-Anisic acid, hydrazide
(antitubercular activity of)
IT 65-85-0, Benzoic acid

(azines and hydrazides, tuberculostatic activity of)

IT 67-56-1, Methanol
(compds., with hydrazine derivs., tuberculostatic activity of)

IT 302-01-2, Hydrazine
(derivs., tuberculostatic activity of)

IT 50-79-3, Benzoic acid, 2,5-dichloro- 64-19-7, Acetic acid 74-11-3, Benzoic acid, p-chloro- 91-40-7, Anthranilic acid, N-phenyl- 98-11-3, Benzenesulfonic acid 99-96-7, Benzoic acid, p-hydroxy- 118-91-2, Benzoic acid, o-chloro- 121-62-0, Sulfanilic acid, N-acetyl- 495-69-2, Hippuric acid 535-80-8, Benzoic acid, m-chloro- 540-13-6, Stearolic acid, 12-hydroxy- 556-08-1, Benzoic acid, p-acetamido- 619-19-2, Salicylic acid, 4-nitro- 28547-16-2, Benzoic acid, p-benzenesulfonamido-
(hydrazides, tuberculostatic activity of)

IT 552-89-6, Benzaldehyde, o-nitro- 555-16-8, Benzaldehyde, p-nitro-
(hydrazones, tuberculostatic activity of)

IT 10465-97-1P, Benzoic acid, 2-carboxyhydrazide Et ester 858212-47-2P, Hydrazine, 1-furfurylidene-2-(4-nitrosalicyloyl)- 858212-77-8P, Hydrazine, 1-p-hydroxybenzylidene-2-(4-nitrosalicyloyl)-
RL: PREP (Preparation)
(preparation of)

IT 5399-22-4, Lauric acid, hydrazide 28236-62-6, Acetic acid, (2,4-dichlorophenoxy)-, hydrazide 878763-70-3, Glycine, hydrazide, dihydrochloride
(tuberculostatic action of)

IT 86-93-1, 1H-Tetrazole-5-thiol, 1-phenyl- 108-26-9, 2-Pyrazolin-5-one, 3-methyl- 110-21-4, Biurea 119-39-1, 1(2H)-Phthalazinone 123-33-1, 3,6-Pyridazinedione, 1,2-dihydro- 521-31-3, 1,4-Phthalazinedione, 5-amino-2,3-dihydro- 599-71-3, Benzenesulfonamide, N-hydroxy- 619-86-3, Benzoic acid, p-ethoxy- 636-97-5, Benzoic acid, p-nitro-, hydrazide 787-84-8, Hydrazine, 1,2-dibenzoyl-, disodium derivative 787-84-8, Hydrazine, 1,2-dibenzoyl- 793-25-9, Hydrazine, 1,2-bis(phenylacetyl)- 795-25-5, Hydrazine, 1,1'-malonylbis[2-furfurylidene- 849-82-1, Hydrazine, 1,2-di-p-anisoyl- 895-84-1, Hydrazine, 1,2-bis[p-chlorobenzoyl]- 940-48-7, Hydrazine, 1-acetyl-2-benzylidene- 956-07-0, Hydrazine, 1-benzoyl-2-benzylidene- 1011-46-7, 3(2H)-Pyridazinone, 4,5-dihydro-6-phenyl- 1071-93-8, Adipic acid, dihydrazide 1219-41-6, Hydrazine, 1-benzoyl-2-α-methylbenzylidene- 1445-69-8, 1,4-Phthalazinedione, 2,3-dihydro- 1456-21-9, 1,3,4-Thiadiazole, 2,5-diphenyl- 1507-93-3, Hydrazine, 1-benzoyl-2-(4-pyridylmethylene)- 1507-93-3, Isonicotinaldehyde, benzoylhydrazones 1904-58-1, Anthranilic acid, hydrazide 2381-77-3, Acetic acid, (2,4,5-trichlorophenoxy)-, hydrazide 2408-99-3, Hydrazine, 1-(N-acetylsulfanilyl)-2-benzoyl- 3232-37-9, Hydrazine, 1-benzoyl-2-salicylidene- 3291-03-0, Benzoic acid, 3,4,5-trimethoxy-, hydrazide 3408-16-0, Hydrazine, 1-benzoyl-2-isopropylidene- 3681-18-3, Hydrazine, 1-acetyl-2-furfurylidene- 3682-15-3, 1,4-Phthalazinedione, 2,3-dihydro-5-nitro- 3742-63-0, Hydrazine, 1-acetyl-2-isopropylidene- 3815-86-9, Malonic acid, dihydrazide 3815-87-0, Hydrazine, 1,1'-malonylbis[2-isopropylidene- 4402-22-6, Hydrazine, 1,2-bis(p-nitrobenzoyl)- 4430-77-7, Pyrido[2,3-d]pyridazine-5,8-dione, 6,7-dihydro- 4860-93-9, 2-Pyrazolin-5-one, 3-phenyl- 4870-16-0, Phthalimide, N-anilino- 5004-45-5, 1(2H)-Phthalazinone, 4-phenyl- 5004-48-8, 1(2H)-Phthalazinone, 4-methyl- 5157-08-4, 3(2H)-Pyridazinone, 4,5-dihydro-6-methyl- 5439-98-5, 1,4-Phthalazinedione, 2,3-dihydro-2-phenyl- 5448-92-0, Hydrazine, 1-(N-acetylsulfanilyl)-2-p-

methoxybenzylidene- 5455-22-1, Hydrazine,
1,2-dibenzoyl-1-phenyl- 5841-44-1, Coumarin, phenylhydrazone
6631-28-3, Hydrazine, 1-benzoyl-2-(phenylsulfonyl)-
6946-29-8, Salicylic acid, 4-amino-, hydrazide
6949-57-1, Hydrazine, 1-(N-acetylsulfanilyl)-2-
benzylidene- 7364-25-2, 3-Indazolinone 7508-72-7,
Hydrazine, 1-benzoyl-2-cinnamylidene- 10465-97-1,
Carbazic acid, 3-benzoyl-, ethyl ester 13327-27-0,
3(2H)-Pyridazinone, 6-methyl- 13961-06-3, Benzamide, azine
14061-96-2, Hydrazine, 1-acetyl-2-(phenylsulfonyl)-
14061-97-3, Hydrazine, 1-acetyl-2-(p-
chlorophenylsulfonyl)- 14062-00-1, Hydrazine,
1-acetyl-2-(p-nitrophenylsulfonyl)- 14331-27-2,
Hydrazine, 1-acetyl-2-benzoyl- 15017-31-9,
Hydrazine, 1-isonicotinoyl-2-[3-pyridylmethylene]-
15017-32-0, Hydrazine, 1-isonicotinoyl-2-[2-
pyridylmethylene]- 15046-25-0, 2-Furanacrylic acid,
α-benzamido-, hydrazide 17129-32-7,
5-Cholesten-3-one, benzoylhydrazone 19353-92-5, Benzoic acid,
p-dimethylamino-, hydrazide 19473-98-4,
Hydrazine, 1,2-dicinnamoyl- 22454-53-1,
Hydrazine, 1-benzoyl-2-o-chlorobenzylidene- 23289-02-3,
Hydrazine, 1-o-chlorobenzoyl-2-o-chlorobenzylidene-
23647-78-1, Hydrazine, 1,2-disalicyloyl- 24214-78-6,
Hydrazine, 1-benzoyl-2-cyclopentylidene- 24214-79-7,
Hydrazine, 1-benzoyl-2-cyclohexylidene- 25996-46-7,
Hydrazine, 1-(p-acetamidobenzylidene)-2-acetyl-
26367-16-8, Hydrazine, 1-benzoyl-2-(1-carboxyethylidene)-
28123-75-3, Hydrazine, 1-benzoyl-2-o-nitrobenzylidene-
28123-77-5, Hydrazine, 1-benzoyl-2-p-nitrobenzylidene-
29110-75-6, p-Toluenesulfonic acid, 2-phenylhydrazide
29645-75-8, Hydrazine, 1-(p-benzenesulfonamidobenzoyl)-2-
benzylidene- 29645-83-8, Hydrazine,
1-(p-benzenesulfonamidobenzoyl)-2-furfurylidene- 29645-90-7,
Hydrazine, 1-(p-benzenesulfonamidobenzoyl)-2-
isopropylidene- 30645-85-3, 2-Pyrazolin-5-one,
4-isopropylidene-3-methyl- 31061-79-7, Hydrazine,
1-benzoyl-2-p-chlorobenzylidene- 32003-11-5,
1,2-Cyclohexanedicarboxylic acid, dihydrazide 33630-74-9,
Hydrazine, 1-(3-carboxy-1-methylpropylidene)-2-p-
ethoxybenzoyl- 35658-16-3, Hydrazine,
1,1'-oxalylbis[2-benzoyl- 38192-13-1, Hydrazine,
1,2-bis[o-chlorobenzoyl]- 38192-14-2, Hydrazine,
1,2-bis[m-chlorobenzoyl]- 38941-47-8, Cyclohexanecarboxylic
acid, hydrazide 39575-26-3, Hydrazine,
1-benzoyl-2-vanillylidene- 39575-26-3, Vanillin, benzoylhyrazone
42933-52-8, 4,4'-Biphenyldisulfonic acid, dihydrazides
43038-36-4, Benzoic acid, p-cyano-, hydrazide
50975-53-6, Hydrazine, 1,2-bis(p-aminobenzoyl)-
51771-21-2, Hydrazine, 1-p-anisoyl-2-p-
methoxybenzylidene- 52239-89-1, 3(2H)-Pyridazinone,
6-(4-biphenylyl)-4,5-dihydro- 52541-00-1, Hydrazine,
1-(4-aminosalicyloyl)-2-benzylidene- 53498-44-5,
Hydrazine, 1,2-bis(p-acetamidobenzoyl)- 53970-32-4,
Hydrazine, 1-p-chlorobenzylidene-2-N-phenylanthraniloyl-
54945-08-3, 2-Pyrazolin-5-one, 4-phenyl- 56049-48-0,
Benzenesulfonic acid, p-chloro-, 2-phenylhydrazide 56077-43-1,
Hydrazine, 1-(p-acetamidobenzoyl)-2-p-hydroxybenzylidene-
56350-41-5, Aceturic acid, hydrazide 57676-51-4,
Acetic acid, (p-chlorophenyl)-, hydrazide 62036-22-0,
s-Triazol-3-ol, 5-(o-chlorophenyl)- 62214-31-7,
Hydrazine, 1-benzoyl-2-furfurylidene- 64515-27-1,
Dehydroascorbic acid, bis(benzoylhydrazone) 67345-54-4, Chloral,
o-chlorobenzoylhydrazone 67345-54-4, Hydrazine,
1-o-chlorobenzoyl-2-(2,2,2-trichloroethylidene)- 74115-30-3,
Hydrazine, 1-o-chlorobenzoyl-2-[2,4-dichlorobenzylidene]-

76917-74-3, Hydrazine, 1-benzoyl-2-(3-carboxy-1-
methylpropylidene)- 80414-97-7, Hydrazine,
1-acetyl-2-(N-acetylsulfanilyl)- 82859-77-6, Hydrazine
, 1-o-chlorobenzoyl-2-salicylidene- 82973-09-9,
Hydrazine, 1-benzylidene-2-o-chlorobenzoyl- 93417-99-3,
Hydrazine, 1-o-chlorobenzoyl-2-furfurylidene-
95087-82-4, Hydrazine, 1,1'-(4,4'-
biphenylenedisulfonyl)bis[2-isopropylidene- 98276-93-8,
Hydrazine, 1-formyl-2-(phenylsulfonyl)-
100136-52-5, Hydrazine, 1-furfurylidene-2-p-
hydroxybenzoyl- 100724-25-2, Hydrazine,
1-p-anisoyl-2-furfurylidene- 101284-97-3, Hydrazine,
1-(p-acetamidobenzylidene)-2-benzoyl- 103038-97-7,
Hydrazine, 1-o-chlorobenzoyl-2-isopropylidene-
103956-10-1, Benzoic acid, 2,4-dimethoxy-, hydrazide
122222-21-3, Hydrazine, 1-hippuroyl-2-isopropylidene-
130158-97-3, Hydrazine, 1-o-chlorobenzoyl-2-α-
methylbenzylidene- 130489-62-2, Hydrazine,
1-o-chlorobenzoyl-2-(p-dimethylaminobenzylidene)- 130489-62-2,
Benzaldehyde, p-dimethylamino-, o-chlorobenzoylhydrazone
130489-66-6, Crotonaldehyde, o-chlorobenzoylhydrazone
130489-66-6, Hydrazine, 1-(2-butenylidene)-2-o-
chlorobenzoyl- 131536-56-6, Hydrazine,
1-o-chlorobenzoyl-2-(3-methoxysalicylidene)- 133605-62-6,
p-Urazine, 3-thio- 137204-94-5, Hydrazine,
1-benzylidene-2-hippuroyl- 139677-65-9, Glycine,
N-(m-nitrophenyl)-, hydrazide 155528-85-1,
Hydrazine, 1-(p-acetamidobenzoyl)-2-benzylidene-
157063-56-4, Hydrazine, 1-o-chlorobenzoyl-2-
cyclohexylidene- 160152-04-5, Hydrazine,
1-benzoyl-2-dichloroacetyl- 197294-73-8, 2-Butanone, dihydrazone
with malonyl dihydrazide 197294-73-8, Hydrazine,
1,1'-malonylbis[2-sec-butylidene- 203268-61-5,
1,3,4-Oxadiazole-2-thiol, 5-phenyl- 301159-28-4,
Hydrazine, 1-o-chlorobenzoyl-2-p-chlorobenzylidene-
301159-31-9, Hydrazine, 1-o-chlorobenzoyl-2-
piperonylidene- 301347-29-5, Hydrazine,
1-benzoyl-2-p-hydroxybenzylidene-, acetate 303216-00-4,
Hydrazine, 1-p-chlorobenzylidene-2-p-ethoxybenzoyl-
303760-31-8, Hydrazine, 1-p-ethoxybenzoyl-2-p-
hydroxybenzylidene- 303770-19-6, Hydrazine,
1-benzylidene-2-p-ethoxybenzoyl- 304478-42-0, Hydrazine
, 1-p-ethoxybenzoyl-2-o-nitrobenzylidene- 316149-29-8,
Hydrazine, 1-o-chlorobenzoyl-2-o-nitrobenzylidene-
316149-36-7, Hydrazine, 1-o-chlorobenzoyl-2-p-
nitrobenzylidene- 316149-37-8, Hydrazine,
1-o-chlorobenzoyl-2-p-hydroxybenzylidene- 316149-66-3,
Hydrazine, 1-o-chlorobenzoyl-2-[2,6-dichlorobenzylidene]-
316150-10-4, Hydrazine, 1-o-chlorobenzoyl-2-
cyclopentylidene- 325777-90-0, Hydrazine,
1-benzylidene-2-(N-phenylanthraniloyl)- 328089-83-4,
Hydrazine, 1-(p-acetamidobenzylidene)-2-o-chlorobenzoyl-
333351-23-8, o-Toluenesulfonic acid, 2-phenylhydrazide
339193-05-4, Hydrazine, 1-(p-acetamidobenzoyl)-2-
isopropylidene- 341975-41-5, Hydrazine,
1-o-chlorobenzoyl-2-cinnamylidene- 341975-69-7,
Hydrazine, 1-o-chlorobenzoyl-2-m-methoxybenzylidene-
341975-69-7, m-Anisaldehyde, o-chlorobenzoylhydrazone
346720-84-1, Hydrazine, 1-benzylidene-2-lauroyl-
346721-90-2, Hydrazine, 1-benzoyl-2-(p-
chlorophenylsulfonyl)- 349106-91-8, Hydrazine,
1-dichloroacetyl-2-p-nitrobenzoyl- 351879-23-7,
Hydrazine, 1-p-ethoxybenzoyl-2-piperonylidene-
351888-76-1, Hydrazine, 1-cinnamylidene-2-p-
ethoxybenzoyl- 360761-18-8, Hydrazine,
1-benzoyl-2-(p-nitrophenylsulfonyl)- 409315-15-7,

Carbazonitrile, 3-benzoyl- 409315-48-6, Carbazonitrile, 3,3'-adipoyldi- 411210-96-3, 2H-1,2,3-Benzothiadiazin-4(3H)-one, 1,1-dioxide 415691-43-9, Hydrazine, 1-benzoyl-2-crotonoyl- 500862-56-6, Hydrazine, 1-isopropylidene-2-lauroyl- 545367-65-5, Hydrazine, 1-p-ethoxybenzoyl-2-isopropylidene- 625380-33-8, Hydrazine, 1-[p-(carboxymethoxy)benzylidene]-2-o-chlorobenzoyl- 625380-33-8, Acetic acid, (p-formylphenoxy)-, o-chlorobenzoylhydrazone 854909-59-4, 1-Cyclohexene-1,2-dicarboxylic acid, 4-chloro-, dihydrazide 855387-19-8, Δ3-1,3,4-Oxadiazoline, 2,5-diphenyl- 855902-78-2, Heptyl alcohol, 3,4-dihydro-1,4-dioxo-2(1H)-phthalazinecarboxylate 855902-78-2, 2(1H)-Phthalazinecarboxylic acid, 3,4-dihydro-1,4-dioxo-, heptyl ester 857574-15-3, Hydrazine, 1-allylidene-2-o-chlorobenzoyl- 857574-15-3, Acrolein, o-chlorobenzoylhydrazone 857597-64-9, m-Anisaldehyde, 2,6-dichloro-, o-chlorobenzoylhydrazone 857597-64-9, Hydrazine, 1-o-chlorobenzoyl-2-(2,6-dichloro-3-methoxybenzylidene)- 857601-62-8, Anthranilic acid, N-4-biphenylyl-, benzylidenehydrazide 857601-62-8, Hydrazine, 1-benzylidene-2-N-4-biphenylylanthraniloyl- 857765-51-6, Hydrazine, 1-benzylidene-2-(4-nitrosalicyloyl)- 857768-52-6, Hydrazine, 1-benzylidene-2-(12-hydroxy-9-octadecynoyl)- 858208-52-3, Hydrazine, 1-(p-acetamidobenzylidene)-2-p-ethoxybenzoyl- 858208-72-7, Hydrazine, 1-acetyl-2-(2,4-dichlorophenylsulfonyl)- 858208-76-1, Hydrazine, 1-acetyl-2-(3-chloropropionyl)- 858208-94-3, Hydrazine , 1-acetyl-2-(2,4-xylylsulfonyl)- 858209-21-9, Hydrazine , 1-benzoyl-2-(2,4-dichlorophenylsulfonyl)- 858210-07-8, Hydrazine, 1-(3-carboxy-1-methylpropylidene)-2-o-chlorobenzoyl- 858210-48-7, Hydrazine, 1-o-chlorobenzoyl-2-ethylidene- 858210-90-9, Hydrazine , 1-(2,5-dichlorobenzoyl)-2-α-methylbenzylidene- 858212-10-9, Hydrazine, 1,2-disenecioyl- 858212-28-9, Hydrazine, 1-p-ethoxybenzoyl-2-ethylidene- 858212-48-3, Hydrazine, 1-furfurylidene-2-(4-nitrosalicyloyl)-, compound with methanol 858212-58-5, Hydrazine, 1-(12-hydroxy-9-octadecynoyl)-2-isopropylidene- 858212-74-5, Hydrazine, 1-p-hydroxybenzylidene-2-N-phenylanthraniloyl- 858212-78-9, Hydrazine, 1-p-hydroxybenzylidene-2-(4-nitrosalicyloyl)-, compound with methanol 858213-47-5, Hydrazine, 1-isopropylidene-2-(4-nitrosalicyloyl)- 859992-77-1, 17-Octadecene-9,11-diynoic acid, hydrazide 860695-37-0, Benzoic acid, p-4-biphenylylamino-, hydrazide 860698-42-6, Benzoic acid, 4-ethoxy-3-iodo-5-nitro-, hydrazide 872782-68-8, Hydrazine, 1-(4-aminosalicyloyl)-2-isopropylidene- 879277-65-3, Hydrazine, 1-o-chlorobenzoyl-2-oleyl-
(tuberculostatic activity of)

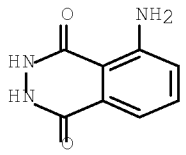
L107 ANSWER 49 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1939:53585 HCAPLUS Full-text
DOCUMENT NUMBER: 33:53585
ORIGINAL REFERENCE NO.: 33:7665f-g,7666a-c
TITLE: Chemiluminescence of hydrazides of carboxylic acids
AUTHOR(S): Vasserman, E. S.; Miklukhin, G. P.
SOURCE: Zhurnal Obshchei Khimii (1939), 9, 606-19
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 16 Dec 2001
GI For diagram(s), see printed CA Issue.

AB The chemiluminescence of hydrazides of type RCONHNH2 (I), R(CONHNH2)2 (II), RCONHNHCOR (III) and RCONHNHCO (IV) is studied by the methods of Albrecht (C. A. 23, 4889.7) and of Gleu (C. A. 30, 8205.5). For open chain hydrazides of type I and II only those with an NH2 group in the nucleus exhibit luminescence. Sym. hydrazines of type III, with the exception of those containing a substituted nucleus, are also nonluminescent. The greatest degree of luminescence is shown by the cyclic hydrazides IV, especially those containing an aromatic nucleus. The mechanism of chemiluminescence is discussed. For 3-aminophthalyl hydrazide (Luminol) (V) it is postulated that in alkaline solution V enolizes, the enol form, in the presence of the activating groups NH2 and OH, then combining with the O dissolved in solution to form a peroxide, which undergoes decomposition with emission of visible light. The cyclic hydrazides, prepared by condensation of a dicarboxylic acid (VI) with N2H4.HCl in the presence of AcONa or by reaction of the di-Et ester of VI with N2H4.H2O, include: 4-nitrophthalyl hydrazide, m. > 320°; 4-sulfophthalyl hydrazide, obtained as the N2H4 salt, darkens at 240°, m. > 310°; 3-nitrophthalyl phenylhydrazide, not purified; biphenyl-2,2'-dicarbonyl hydrazide, m. > 310°; phenyl-glycine-2-carbonyl hydrazide, m. > 320°; 1-amino-2,5-diphenylpyrrole-3,4-dicarbonyl hydrazide, insol. in the common solvents, m. > 320°. Aurintricarboxylic acid with N2H4.HCl and AcONa forms a compound which, because of its luminescent properties, is assumed to be the cyclic hydrazyl hydrazide C22H16N4O6 (?). 55 references.

IT 521-31-3, 1,4-Phthalazinedione, 5-amino-2,3-dihydro-
(chemiluminescence of)

RN 521-31-3 HCAPLUS

CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



CC 3 (Subatomic Phenomena and Radiochemistry)

IT Luminescence
(chemi-, of hydrazides of carboxylic acids)

IT Hydrazides
(chemiluminescence of)

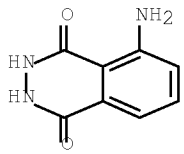
IT 521-31-3, 1,4-Phthalazinedione, 5-amino-2,3-dihydro-
(chemiluminescence of)

IT 858272-11-4, 6-Pyrrolo[3,4-d]pyridazine-1,4-dione, 6-amino-2,3-dihydro-5,7-diphenyl- 858272-11-4, 3,4-Pyrroledicarboxylic acid, 1-amino-2,5-diphenyl-, cyclic hydrazide
(luminescence of)

IT 3682-19-7P, 1,4-Phthalazinedione, 2,3-dihydro-6-nitro- 4478-03-9P, Anthranilic acid, N-(carboxymethyl)-, cyclic hydrazide 4521-93-1P, Dibenzo[d,f][1,2]diazocine-5,8-dione, 6,7-dihydro- 861016-26-4P, 6-Phthalazinesulfonic acid, 1,2,3,4-tetrahydro-1,4-dioxo-, compound with N2H4
RL: PREP (Preparation)
(preparation of)

L107 ANSWER 50 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1913:17663 HCAPLUS Full-text
DOCUMENT NUMBER: 7:17663
ORIGINAL REFERENCE NO.: 7:2563i,2564a-e
TITLE: Behavior of the 1-Ethyl Ester of 3-Nitrobenzene-1,2-dicarboxylic Acid towards Hydrazine
AUTHOR(S): Curtius, Theodor; Semper, August
CORPORATE SOURCE: Univ. Heidelberg
SOURCE: Berichte der Deutschen Chemischen Gesellschaft

(1913), 46, 1162-71
CODEN: BDCGAS; ISSN: 0365-9496
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 16 Dec 2001
GI For diagram(s), see printed CA Issue.
AB Miller's compound, m. 110° (Ann., 208, 244) is the 1-ethyl ester of 3-nitrobenzene-1,2-dicarboxylic acid; rubbed with 0.5 part of $N_2H_4.H_2O$ and allowed to stand several days over H_2SO_4 in a desiccator (not evacuated), it gives hydrazine o-nitrophthalate monohydrazide, 3,2-$O_2N(N_3H_4.HO_2C)C_6H_3CONHNH_2$, needles, m. 157° (foaming), giving, with BzH in H_2O, the benzal-o-nitrophthalic monohydrazide, $O_2N(HO_2C)C_6H_3$-CONHN : CHPh, needles, m. 177°, while with HCl it gives the hydrazide itself, flat needles, does not m. 280°, cannot be recrystd. from hot H_2O or dilute alc., gives with $NaNO_2$ in HCl the azide, scales, deflagrates on heating, converted by long b. with alc., with formation of HN_3, not into the 1- but into the 2-ethyl ester of 3-nitrobenzene-1,2- di-carboxylic acid, yellowish needles, m. 157°; concentrate HCl after several hrs. at 120-30° hydrolyzes the ester to 2,3-$(HO_2C)_2C_6H_2NO_2$ while b. alc. HCl gives the di-Et ester. The isomeric 1-ester, on the other hand, gives but a trace of the di-ester with alc. HCl, while the 2-ester does not react with N_2H_4. The azide, b. in $CHCl_3$ until the evolution of gas ceases, gives, not the isocyanate but o-nitroisatoic anhydride (I), voluminous, light yellow, crystalline precipitate, m. 215°, slowly soluble in b. H_2O with yellow color and evolution of CO_2, 6,2-$O_2N(H_2N)C_6H_3CO_2H$ being formed; the same acid is obtained with b. NaOH or $Ba(OH)_2$, but b. dilute H_2SO_4 gives m-$O_2NC_6H_4NH_2$. (I) slowly dissolves in b. absolute alc., forming the urethan, 3,2-$O_2N(HO_2C)C_6H_3NHCO_2Et$, flat, faintly yellow needles, m. 187°, converted by b. dilute NaOH into $O_2N(HO_2C)C_6H_3NH_2$. 6-Nitro-2-amino-benzanilide, from (I) and 2 mols. $PhNH_2$ in the cold, yellow needles, m. 137°. If the 1-ester above is b. 10 hrs. with 3.07 parts $N_2H_4.H_2O$, it gives hydrazine o-aminophthalic cyclic hydrazide (II), microscopic, light yellow needles and darker spherical aggregates, easily soluble in NH_3, Na_2CO_3 and $N_2H_4.H_2O$. Barium salt, yellowish. Free hydrazide, from the Ba salt and dilute AcOH, insol. in H_2O, soluble in dilute acids and alks., gives a dye, when diazotized, with m-$C_6H_4(OH)_2$, dissolves with blue fluorescence in warm glacial AcOH, does not m. 280°. Sodium salt, hexagonal tables.
IT 521-31-3, 1,4-Phthalazinedione, 5-amino-2,3-di-hydro- (and derivs.)
RN 521-31-3 HCAPLUS
CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (CA INDEX NAME)



CC 10 (Organic Chemistry)
IT 521-31-3, 1,4-Phthalazinedione, 5-amino-2,3-di-hydro- (and derivs.)
IT 20829-97-4P, Isatoic anhydride, 6-nitro- 41470-93-3P, Isatoic acid, 2-ethyl ester 861546-80-7P, Benzanilide, o-amino-6-nitro- 872266-38-1P, Benzoic acid, 2-nitro-6-(triazoformyl)-
RL: PREP (Preparation)
(preparation of)

FULL SEARCH HISTORY

```
=> d his nofile

     (FILE 'HOME' ENTERED AT 15:56:37 ON 28 DEC 2007)

     FILE 'HCAPLUS' ENTERED AT 15:56:43 ON 28 DEC 2007
                E US20070128680/PN
L1              1 SEA ABB=ON  PLU=ON  US20070128680/PN
                D ALL
                SEL RN

     FILE 'REGISTRY' ENTERED AT 15:57:32 ON 28 DEC 2007
L2             38 SEA ABB=ON  PLU=ON  (10025-73-7/BI OR 10025-91-9/BI OR
                   10026-07-0/BI OR 10026-10-5/BI OR 10026-11-6/BI OR
                   10026-12-7/BI OR 10049-06-6/BI OR 10108-64-2/BI OR
                   10294-34-5/BI OR 123-91-1/BI OR 13450-90-3/BI OR
                   22441-45-8/BI OR 3682-15-3/BI OR 521-31-3/BI OR
                   603-11-2/BI OR 67-64-1/BI OR 67-68-5/BI OR 68-12-2/BI
                   OR 7446-70-0/BI OR 7447-39-4/BI OR 7487-94-7/BI OR
                   7550-45-0/BI OR 7637-07-2/BI OR 7646-79-9/BI OR
                   7646-85-7/BI OR 7647-18-9/BI OR 7697-37-2/BI OR
                   7705-07-9/BI OR 7705-08-0/BI OR 7718-54-9/BI OR
                   7758-89-6/BI OR 7784-34-1/BI OR 7786-30-3/BI OR
                   7787-47-5/BI OR 7787-60-2/BI OR 7789-48-2/BI OR
                   85-44-9/BI OR 872-50-4/BI)
                D SCAN
L3              4 SEA ABB=ON  PLU=ON  L2 AND ?ACID?/CNS
                D SCAN
                D 1-4
L4              2 SEA ABB=ON  PLU=ON  L2 AND 2-9/N
                D SCAN

     FILE 'LREGISTRY' ENTERED AT 16:03:19 ON 28 DEC 2007
L5              STR
L6              STR

     FILE 'REGISTRY' ENTERED AT 16:12:25 ON 28 DEC 2007
L7             50 SEA SSS SAM L5
                D QUE STAT
L8              SCR 1527
L9              SCR 1918 OR 2043 OR 2127
L10             SCR 1841
                D QUE L7
L11            50 SEA SSS SAM L5 AND L8 NOT (L9 OR L10)
L12         59360 SEA SSS FUL L5 AND L8 NOT (L9 OR L10)
                SAV TEMP L12 JAI943REG/A
                D QUE STAT

     FILE 'LREGISTRY' ENTERED AT 16:24:40 ON 28 DEC 2007
L13             STR L5

     FILE 'REGISTRY' ENTERED AT 16:25:19 ON 28 DEC 2007

     FILE 'LREGISTRY' ENTERED AT 16:26:03 ON 28 DEC 2007
L14             STR L5
                D QUE STAT L6

     FILE 'REGISTRY' ENTERED AT 16:30:22 ON 28 DEC 2007
L15            50 SEA SSS SAM L6
L16            50 SEA SSS SAM L6 NOT (L9 OR L10)
L17             SCR 1627 OR 1633
L18            50 SEA SSS SAM L6 AND L17 NOT (L9 OR L10)
L19         67125 SEA SSS FUL L6 AND L17 NOT (L9 OR L10)
                SAV TEMP L19 JAI943REGA/A
L20         11155 SEA ABB=ON  PLU=ON  L19 AND CASREACT/LC
```

```
L21        6039 SEA ABB=ON  PLU=ON  L12 AND CASREACT/LC

     FILE 'CASREACT' ENTERED AT 16:39:47 ON 28 DEC 2007
L22             STR L5
L23          10 SEA SSS SAM L22 (   137 REACTIONS)
L24         250 SEA SSS FUL L22 (  1711 REACTIONS)
L25          73 SEA ABB=ON  PLU=ON  L24(L)ANY/CAT

     FILE 'REGISTRY' ENTERED AT 16:49:31 ON 28 DEC 2007
L26          28 SEA ABB=ON  PLU=ON  L2 AND 1-9/X
                D SCAN

     FILE 'CASREACT' ENTERED AT 16:50:35 ON 28 DEC 2007
L27          25 SEA ABB=ON  PLU=ON  L24(L)L26
                SAV L27 JAI943CRCT/A

     FILE 'LREGISTRY' ENTERED AT 16:54:11 ON 28 DEC 2007
L28             STR

     FILE 'REGISTRY' ENTERED AT 16:58:23 ON 28 DEC 2007
L29          50 SEA SUB=L12 SSS SAM L28
L30        8789 SEA SUB=L12 SSS FUL L28
                SAV TEMP L30 JAI943REGB/A

     FILE 'CASREACT' ENTERED AT 17:00:38 ON 28 DEC 2007
L31             STR L28
L32           0 SEA SUB=L24 SSS SAM L31 (     0 REACTIONS)
                D QUE STAT
L33          29 SEA SUB=L24 SSS FUL L31 (   137 REACTIONS)
L34           4 SEA ABB=ON  PLU=ON  L33(L)L26
                D SCAN
L35         123 SEA ABB=ON  PLU=ON  L24 AND HYDRAZ?
L36           1 SEA ABB=ON  PLU=ON  L24 AND LEWIS(A)ACID
                D SCAN
                D SCAN
L37             STR
L38           0 SEA SUB=L24 SSS SAM L37 (     0 REACTIONS)

     FILE 'REGISTRY' ENTERED AT 17:09:59 ON 28 DEC 2007
                E NIOBIUM PENTACHLORIDE/CN
L39           1 SEA ABB=ON  PLU=ON  ("NIOBIUM PENTACHLORIDE"/CN OR
                "NIOBIUM PENTACHLORIDE (NBCL5)"/CN)
                D SCAN
                D RN

     FILE 'CASREACT' ENTERED AT 17:11:41 ON 28 DEC 2007
L40           0 SEA ABB=ON  PLU=ON  L24(L)L39
L41           0 SEA ABB=ON  PLU=ON  L24(L)10026-12-7/NPRO
L42          49 SEA ABB=ON  PLU=ON  L27 OR L33 OR L34 OR L36 OR (L40
                OR L41)

     FILE 'HCAPLUS' ENTERED AT 17:16:21 ON 28 DEC 2007
L43             QUE ABB=ON  PLU=ON  PY<2004 OR PRY<2004 OR AY<2004 OR
                MY<2004 OR REVIEW/DT

     FILE 'CASREACT' ENTERED AT 17:17:23 ON 28 DEC 2007
L44          32 SEA ABB=ON  PLU=ON  L42 AND L43
                SAV L44 JAI943CRCTA/A
                SAV L24 JAI943CRCTB/A

     FILE 'HCAPLUS' ENTERED AT 17:20:20 ON 28 DEC 2007
L45       40816 SEA ABB=ON  PLU=ON  L12/RACT
L46       20416 SEA ABB=ON  PLU=ON  L19/RACT
L47         496 SEA ABB=ON  PLU=ON  L45 AND L46
L48      199206 SEA ABB=ON  PLU=ON  L26
L49           6 SEA ABB=ON  PLU=ON  L47 AND L48
                D  QUE L30
```

```
L50        5313 SEA ABB=ON  PLU=ON  L30/RACT
L51          90 SEA ABB=ON  PLU=ON  L46 AND L50
L52           1 SEA ABB=ON  PLU=ON  L51 AND L48

     FILE 'REGISTRY' ENTERED AT 17:24:32 ON 28 DEC 2007
                D SCAN L39

     FILE 'HCAPLUS' ENTERED AT 17:25:18 ON 28 DEC 2007
L53        2572 SEA ABB=ON  PLU=ON  L39 OR NIOBIUM(A)PENTACHLORIDE OR
                NBCL5 OR CL5NB
L54           0 SEA ABB=ON  PLU=ON  L53 AND (L47 OR L51)
L55           0 SEA ABB=ON  PLU=ON  (L47 OR (L51 OR L52)) AND LEWIS(A)A
                CID
                E LEWIS ACIDS/CT
                E E3+ALL
L56        6951 SEA ABB=ON  PLU=ON  "LEWIS ACIDS"+PFT,OLD,NT/CT
L57       29655 SEA ABB=ON  PLU=ON  LEWIS(A)ACID?
L58       29655 SEA ABB=ON  PLU=ON  L56 OR L57
L59           0 SEA ABB=ON  PLU=ON  L58 AND (L47 OR L51)
L60      279348 SEA ABB=ON  PLU=ON  L12
L61       53268 SEA ABB=ON  PLU=ON  L19
L62       29553 SEA ABB=ON  PLU=ON  L30
                D QUE STAT
L63        1855 SEA ABB=ON  PLU=ON  L61 AND (L60 OR L62)
L64         839 SEA ABB=ON  PLU=ON  L63 AND (L58 OR L26 OR L53 OR
                HYDRAZ?)
L65             QUE ABB=ON  PLU=ON  PRODUC? OR PROD# OR GENERAT? OR
                MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR
                FORMAT? OR MAKE# OR MADE# OR MAKIN# OR FABRICAT? OR
                SYNTHESI? OR PREPAR? OR PREP#
L66          751 SEA ABB=ON  PLU=ON  L64 AND L65
L67            6 SEA ABB=ON  PLU=ON  L49 OR L52 OR (L54 OR L55) OR L59
L68           0 SEA ABB=ON  PLU=ON  L1 AND L67
L69       78471 SEA ABB=ON  PLU=ON  L3
L70        3475 SEA ABB=ON  PLU=ON  L4
L71        3460 SEA ABB=ON  PLU=ON  L3 AND L4
L72          52 SEA ABB=ON  PLU=ON  L71 AND L48
L73           2 SEA ABB=ON  PLU=ON  L71 AND L58
L74         183 SEA ABB=ON  PLU=ON  L71 AND HYDRAZ?
                D QUE
L75         121 SEA ABB=ON  PLU=ON  L74 AND L65
L76          12 SEA ABB=ON  PLU=ON  L75 AND DICARBOXYL?(A)ACID?
L77           3 SEA ABB=ON  PLU=ON  HYDRAZ? AND DICARBOXYL?(A)ACID?
                AND (L58 OR L53)
                D SCAN
L78          21 SEA ABB=ON  PLU=ON  L67 OR L73 OR L76 OR L77
L79          18 SEA ABB=ON  PLU=ON  L78 AND L43
                D 1-18 TI
                D 1-18 KWIC
L80          18 SEA ABB=ON  PLU=ON  L79 AND (L65 OR PROCESS?)
                SAV TEMP L80 JAI943HCP/A
                DEL SEL
                SEL L1 AU
L81          22 SEA ABB=ON  PLU=ON  ("ALVES DA SILVA, JACQUELINE"/AU
                OR "CARDOSO, JARI NOBREGA"/AU OR "FERREIRA GOMES,
                LETICIA"/AU OR "LOPES, CLAUDIO CERQUEIRA"/AU OR
                "LOPES, ROSANGELA SABATTINI CAPELLA"/AU)
                DEL SEL
                SEL L1 PA
L82          22 SEA ABB=ON  PLU=ON  "UNIVERSIDADE FEDERAL DO RIO DE
                JANEIRO UFRJ BRAZIL"/PA,CS,SO,CO
L83           3 SEA ABB=ON  PLU=ON  L81 AND L82
                D SCAN

     FILE 'ZCAPLUS' ENTERED AT 17:49:39 ON 28 DEC 2007
                D QUE L81
L84             QUE ABB=ON  PLU=ON  CARDOSO J?/AU
```

```
                E FERREIRA L/AU
L85             QUE ABB=ON  PLU=ON  FERREIRA L?/AU
                E FERREIRA GOMES L/AU
L86             QUE ABB=ON  PLU=ON  FERREIRA GOMES L?/AU
                E GOMES L/AU
L87             QUE ABB=ON  PLU=ON  GOMES L?/AU
L88             QUE ABB=ON  PLU=ON  L85 OR L86 OR L87
                D QUE L81

     FILE 'HCAPLUS' ENTERED AT 17:53:03 ON 28 DEC 2007
                D L1 AU

     FILE 'ZCAPLUS' ENTERED AT 17:53:03 ON 28 DEC 2007
                E LOPES C/AU
L89             QUE ABB=ON  PLU=ON  LOPES C?/AU
L90             QUE ABB=ON  PLU=ON  LOPES R?/AU

     FILE 'HCAPLUS' ENTERED AT 17:54:25 ON 28 DEC 2007
                D L1 AU

     FILE 'ZCAPLUS' ENTERED AT 17:54:25 ON 28 DEC 2007
                E ALVES DA SILVA J/AU
L91             QUE ABB=ON  PLU=ON  ALVES DA SILVA J?/AU
                E ALVES J/AU
L92             QUE ABB=ON  PLU=ON  ALVES J?/AU
                E SILVA J/AU
L93             QUE ABB=ON  PLU=ON  SILVA J?/AU
L94             QUE ABB=ON  PLU=ON  (L91 OR L92 OR L93)
L95             QUE ABB=ON  PLU=ON  L84 OR L88 OR L89 OR L90 OR L94

     FILE 'HCAPLUS' ENTERED AT 17:57:13 ON 28 DEC 2007
L96           3 SEA ABB=ON  PLU=ON  L95 AND L82
                D 1-3 AU
L97           7 SEA ABB=ON  PLU=ON  L95 AND (L45 OR L46 OR L50)
L98          27 SEA ABB=ON  PLU=ON  L95 AND (HYDRAZ? OR DICARBOXYLIC(A)
                ACID?)
                D L98 1-17 AU
L99           1 SEA ABB=ON  PLU=ON  L95 AND (HYDRAZ? AND DICARBOXYLIC(A
                )ACID?)
L100          9 SEA ABB=ON  PLU=ON  L83 OR L96 OR L97 OR L99
                D 1-5 AU
L101          5 SEA ABB=ON  PLU=ON  L100 AND L43
                SAV TEMP L80 JAI943HCPIN/A

     FILE 'CASREACT' ENTERED AT 18:04:19 ON 28 DEC 2007
L102          4 SEA ABB=ON  PLU=ON  ("ALVES DA SILVA, JACQUELINE"/AU
                OR "CARDOSO, JARI NOBREGA"/AU OR "FERREIRA GOMES,
                LETICIA"/AU OR "LOPES, CLAUDIO CERQUEIRA"/AU OR
                "LOPES, ROSANGELA SABATTINI CAPELLA"/AU)
                D SCAN
L103          2 SEA ABB=ON  PLU=ON  L95 AND L82
                D SCAN
L104          4 SEA ABB=ON  PLU=ON  (L102 OR L103)
L105          3 SEA ABB=ON  PLU=ON  L104 AND L43
                SAV TEMP L105 JAI943CRCTIN/A

     FILE 'STNGUIDE' ENTERED AT 18:07:13 ON 28 DEC 2007
                D QUE L105
                D QUE L101

     FILE 'CASREACT, HCAPLUS' ENTERED AT 18:08:52 ON 28 DEC 2007
L106          7 DUP REM L105 L101 (1 DUPLICATE REMOVED)
                     ANSWERS '1-3' FROM FILE CASREACT
                     ANSWERS '4-7' FROM FILE HCAPLUS
                D L106 1-7 IBIB
                D QUE STAT L44
                D QUE STAT L80
```

```
L107         50 DUP REM L44 L80 (0 DUPLICATES REMOVED)
                ANSWERS '1-32' FROM FILE CASREACT
                ANSWERS '33-50' FROM FILE HCAPLUS
              D L107 1-32 IBIB AB FHIT IND
              D L107 33-50 IBIB ED ABS HITSTR HITIND
```